

**Report to:** Economy, Transport and Environment Scrutiny Committee  
**Date of meeting:** 14 June 2017  
**By:** Director of Communities, Economy and Transport  
**Title:** East Sussex Road Safety Programme – Update  
**Purpose:** To provide an update on the East Sussex Road Safety Programme funded by £1million one off funding to reduce the high rates of Killed and Seriously Injured people on roads in East Sussex.

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**RECOMMENDATIONS:** The Committee is recommended to:

- 1) Note that between 90% and 95% of road traffic collisions resulting in killed and seriously injured people are caused by driver error and therefore the programme of work undertaken must be varied and targeted to address different high risk groups and roads;
  - 2) Note the progress made on the development and implementation of the East Sussex Road Safety Programme which is designed to target the high risk groups and issues to reduce the rate of those killed and seriously injured on roads in East Sussex;
  - 3) Note the work taking place with the Sussex Safer Roads Partnership (SSRP) to review the current target of reducing the number of people killed and seriously injured on East Sussex roads by 40% by 2020 based on a 2005-9 average;
  - 4) Note the proposal for a final report on the outcomes of the East Sussex Road Safety Programme to come to Committee in 2018/19, following conclusion of the work
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## 1 Background

1.1 This background section is a summary of information provided to Committee in previous reports in March 2016 and September 2016. The previous report to Scrutiny is attached in appendix 1.

1.2 East Sussex County Council agreed to allocate one-off funding available through the Public Health grant to areas where East Sussex was an outlier against indicators in the national Public Health Outcomes Framework (PHOF). The PHOF, *“Healthy lives, healthy people: Improving outcomes and supporting transparency”*, sets out a vision for public health, desired outcomes and the indicators that will help understand how well public health is being improved and protected. It includes the rate of killed and seriously injured (KSI) people as an indicator. The KSI rate was identified as a potential area for one-off investment because rates in East Sussex have been higher than the England average for many years.

1.3 In response to this, a report *“Safer Streets”* was commissioned to gather the views of partners. The report by Peter Brett Associates (PBA) previously presented in full to Committee, indicated that there is widespread interest amongst partners and stakeholders in introducing further targeted work to reduce the number of KSIs across East Sussex. However, area wide 20mph speed limits were not universally supported. This view has since been further strengthened by national reports on the minimal success of introducing 20mph zones and the need for more targeted approaches to improving road safety. Wider measures to address KSIs, including behaviour change and education, were indicated by partners to be areas that would have the most impact in reducing the KSI rates in East Sussex. The focus on behaviour change has gained traction nationally as evidence of the effectiveness of this approach has begun to emerge and a number of areas are beginning to pilot work in this area.

1.4 The national trend over the last 24 years has seen a significant fall in the number of people killed and seriously injured on the roads throughout the UK. On East Sussex roads in 1990 there were 563 KSIs (of which 502 were serious and 61 were fatal), and in 2014 there were 390 KSIs (of which 374 were serious 16 were fatal). This is a rate of 2.964 fatally injured people per 100,000 population and a rate of 69.29 seriously injured people per 100,000 population.

1.5 However, whilst rates of KSIs have reduced, the data indicates that they have not reduced as quickly in East Sussex as the national average. East Sussex, in common with the majority of County Councils in England (19 out of 27) has a KSI rate higher than the England average. The average rate of KSIs in County Council areas for the three year period 2012-2014 was 46.5 per 100,000 population, compared to a rate of 39.3 per 100,000 population for England overall. The East Sussex rate however for the same period was 64.5 per 100,000 population.

1.6 Analysis of KSI data in East Sussex shows that approximately 90% of all crashes involving personal injury have a human error/action as the main or as a contributory factor (as recorded by the Police as part of data collection through the Department for Transport (DfT) approved STATS 19 reporting system).

1.7 Nationally and locally there has been significant analysis into how and why road traffic collisions occur and the most effective interventions to reduce their number. Analysis has found that the causes of KSIs are complex and multi-faceted and are influenced by many service areas and programmes. A number of internal and external partners are involved in wide ranging work to address the number of KSI's in road traffic collisions and improve overall road safety and the East Sussex Road Safety Programme is being delivered with their support. Partners include Sussex Police, East Sussex Fire and Rescue (ESF&RS) and Highways England.

1.8 Given the need for an evidence led approach to developing a range of targeted interventions to address the high rate of those KSI in East Sussex, the emerging evidence indicates the possible contribution that behaviour change approaches can make to reducing risk and improving overall road safety. Therefore the decision was made by the East Sussex Road Safety Programme Board, chaired by the Assistant Director of Communities, to use part of the allocation to develop and pilot behaviour change interventions within East Sussex to determine their effectiveness in this context. The Programme Board oversees the development and implementation of the project

1.9 The work undertaken on behaviour change interventions complements work also being developed under by the ESCC Road Safety Team. This work which is designed to focus on road infrastructure and speed management work is targeted specifically at high risk locations in East Sussex. The report by ESCC Road Safety Team on these high risk locations is attached in appendix 2.

## **2 Supporting information**

2.1 National and local KSI Targets - In 2000, the Government announced a new Road Safety Strategy and set new targets for reducing casualties by 2010. There were a number of targets, the most significant one being a reduction in the number of those people killed or seriously injured. The target was a reduction of 40% by the year 2010 based on the average of those KSI casualties from the years 1994 to 1998. There was also a significant change in recording KSIs in 2005 which maybe one of the reasons why East Sussex figures are higher than average.

2.1.1 During the period 2000 to 2010 there was a ring-fenced Road Safety grant provided to all local authorities by the Department for Transport. Between 2008 and 2011 this grant of £2.35m to ESCC funded a range of road safety interventions. Nationally the target was met with a KSI reduction of 44%. However, in East Sussex a reduction in KSIs of only 30% was achieved.

2.1.2 Currently there are no national road safety targets. The national Strategic Framework for Road Safety (May 2011) details two forecasts, a central forecast and a low forecast that Central Government believes to be achievable (based on a % reduction on the average of 2005 to 2009 KSI casualties). The central forecast predicts a 40% reduction in KSIs by 2020 on the assumption that existing road safety programmes and other partners' measures continue to develop. The low forecast predicts a 50% reduction if the lower performing authorities were to improve their performance towards the level of the top performers. In this context East Sussex would be seen as a lower performing authority.

2.1.3 The forecasts set in 2011 are extremely ambitious, and based on the assumptions detailed in paragraph 2.1.2. In addition, at the same time as these forecasts were set, the ring-fenced Road Safety grant was removed and local government faced significant budget reductions. Along with the pressure in funding, the target did not take into account increasing populations, varying road types in local authority areas, changing economics and increasing traffic flows. However, local authorities were encouraged by the DfT to aim to meet these forecasts and following discussions at the SSRP, East Sussex County Council (ESCC), West Sussex County Council (WSCC) and Brighton & Hove City Council (BHCC) set a target of a 40% reduction in KSIs by 2020. Both West Sussex and Brighton and Hove have since reviewed the 40% target. WSCC is considering establishing a 25% target with the eventual aim of working towards the ambition of zero casualties. Brighton and Hove have taken a different approach projecting for the next 10 years a forecast for reducing the number of people killed or seriously injured based on two levels of forecast- a central projection and a low projection- which are intended to provide parameters which allow flexibility for the numerous factors and social conditions influencing the collision rate, whilst still maintaining focus on a downward trend.

2.1.4 For East Sussex, a 40% reduction in KSI casualties based on the average of 2005 to 2009 would seek to reduce KSI casualties to 227 by 2020, a reduction of 152 KSI from the average of 379.

2.1.5 Since the forecasts were set by the DfT, all local authorities in Sussex have shown an increase in KSIs between 2011 and 2014. During this period a number of similar local authorities have also seen an increase, for example Suffolk and Norfolk.

2.2 East Sussex KSI Trends - An analysis of KSIs in East Sussex, undertaken by the SSRP, indicates that although there has been a downward trend this has not been a straight line reduction. Since 1999 the KSI rate has seen a number of peaks and troughs rather than one clear overall sustained change. Indeed over the latest 4 years for which complete data is available (1999 to 2014) there has been an increase in the number of KSI casualties.

2.2.1 Issues with comparing East Sussex KSI rates with other local authorities - The East Sussex KSI rate has been higher than the England average for many years. The KSI rate during the period 2012-2014 for East Sussex is 64.5 per 100,000 population and the average for county councils in England is 46.5. Although KSI rates continue to be compared nationally, it should be noted that the SSRP have stated their view that it is difficult to compare KSI data with other local authorities. SSRP cite a number of reasons for these difficulties, such as differing road networks, weather, rural/urban splits, public transport availability, and collision reporting/recording and economic differences. This makes the picture extremely complex and indicates that data directly comparing authorities is difficult to interpret because these factors and their interaction may impact to different degrees in different areas.

2.2.2 Benchmarking for a new target. There is no definitive way of agreeing a suitable target based either on trends or on possible 'comparative areas'. There are various ways of identifying similar areas. The Office for National Statistics have ways of grouping similar areas based on 2011 Census data but these are for lower tier local authorities (e.g. Eastbourne and Hastings).

2.2.3 Within the Public Health Outcomes Framework there are two ways of comparing areas. One is a simple way, involving a deprivation measure which groups areas with similar deprivation scores (East Sussex being in 4<sup>th</sup> least deprived decile – amongst 40% of least deprived areas in England- though within this group one of the most deprived).

2.2.4 An alternative way is using the Chartered Institute of Public Finance and Accountancy (CIPFA) nearest neighbours modelling which seeks to measure similarity between local authorities and is a commonly used measure. However whilst the use of the CIPFA nearest neighbours modelling which seeks to measure similarity between Local Authority areas, is well used, there are significant issues with its application to road safety specifically. In particular, the CIPFA model is primarily based on population and income, rather than including for instance the kinds of roads within the area or controlling for weather conditions beyond flood risk. Therefore, whilst this model may be useful for policy areas where focus on income and population factors are key, it is less useful for an area such as road safety.

2.2.5 It is recognised nationally that establishing an appropriate target is difficult. The Government has indicated that whilst it does not necessarily advocate the introduction of road safety targets, including reducing road casualty targets, there is a need to maintain momentum. Therefore the Department for Transport (DfT) 'Strategic Framework for Road Safety' suggests the use of 'Forecasts'. This method of trying to predict 'central and lower' projections is based upon the need to take into account the numerous, complex factors affecting casualty reduction.

2.2.6 Following a discussion between Senior Officers at WSCC, BHCC and ESCC regarding the current DfT forecasts and the 40% target, it was agreed that the SSRP would undertake a review of the current KSI targets for Sussex and recommend an alternative approach. This review is now taking place in conjunction with partners on a pan Sussex basis and will be concluded by October 2017. This will ensure that we are able to collectively establish a position and coordinate efforts to work towards this. In the interim period, targets will be agreed for each of the projects to be delivered within the East Sussex Road Safety Programme. The outcomes of these projects will be reported to Committee following the completion and evaluation of projects.

2.3 Progress in the development and delivery of the East Sussex Road Safety Programme. As advised previously in this report, the decision was made to develop a series of behavioural insights schemes together with focused speed management to address the rate of KSIs in East Sussex.

2.3.1 Behaviour Change and Education- £500,000 has been allocated to this area of work. This is an important area as evidence tells us that approximately 90% of KSIs are due to human error. The Behavioural Insights Team (BIT) formerly part of the Cabinet Office (where they were termed the 'nudge unit') and the worlds first government institution dedicated to the application of behavioural sciences (<http://www.behaviouralinsights.co.uk>) were commissioned by ESCC to conduct in depth data analysis to confirm the target groups and priority issues to identify any treatable trends. This work was conducted over a

three month period with the support of and data provided by the SSRP and Sussex Police and enabled a far more detailed analysis than had been previously carried out.

2.3.2 This work resulted in a summary report attached in appendix 3 by the Behavioural Insights Team. In summary the data analysis provided by the BIT aimed to consider a series of existing hypotheses to test whether these actually could be proved empirically. These included for example whether occupational drivers, elderly drivers, motorcyclists and visitors to the county proved to be at higher risk of KSIs and the extent to which the higher rate of KSIs in East Sussex could be due to the relative high percentage of rural roads.

2.3.3 Interestingly this detailed data analysis using leading data mining techniques to produce a fully predictive model of risk did not find that occupational or elderly drivers to be at high risk of causing KSIs, that the majority of risk was associated with East Sussex residents (particularly the closer to home they are) and that the rural nature of the road network had minimal impact on KSIs as do weather patterns. However occupational drivers remain an important target group pan Sussex for work by the SSRP as whilst the data does not show they contribute significantly to the East Sussex KSI figures, they are involved in minor collisions (which are not KSI). Work is ongoing with the SSRP to evaluate the Company Operator Safer Transport Scheme (COSTS) programme which provides occupational driving training across Sussex. This work is taking place together with work conducted internally by the ESCC Road Safety team to review our own occupational driving policy to ensure that both are relevant and fit for purpose.

2.3.4 The BIT identified three key target groups and suggested that these be prioritised as there was strong empirical evidence for focusing attention in these areas. These are young drivers (17-25), motorcyclists and car drivers in relation to vulnerable road users (cyclists /pedestrians etc.). Further information on each of these is included in the report from the BIT in appendix 3.

2.3.5. In addition to the high risk groups identified through this detailed data analysis work, the Behavioural Insights Team noted the following issues were of particular salience as contributors to the number of KSIs,

- that drivers are at higher risk of a KSI closer to home,
- issues with driver distraction /loss of concentration
- reckless driving
- travelling at speeds inappropriate to the conditions.

2.3.6 A workshop was held in April, supported by the Programme Board with senior partners from external organisations, together with internal road safety experts and communications leads to review this analysis and to propose a series of suitable behaviour change pilots to be taken forward under this programme of work. This workshop was chaired by a senior member of the Behavioural Insights team and supported by the full project team within BIT. The projects proposed had to meet the following key criteria to be put forward to Programme Board for subsequent approval

- Evidence based and focused on the identified priority groups and underlying issues
- Amenable to behaviour change interventions
- Affordable within the budget allocated to this aspect of the programme and deliverable with the support of project partners within the timeframe of the programme of work
- Clear outcomes and success criteria and be able to be evaluated for effectiveness and value for money at project end (September 2018- tbc) to enable next steps in this work to be determined.

2.3.7 At this workshop, a number of possible projects were proposed. A process of assessment and review is currently taking place by both the BIT and ESCC Road Safety Team to develop these and to consider those which are most likely to be amenable to behaviour change and suitable evaluation criteria. Once this work is complete, the list of proposed projects will be signed off by the Programme Board prior to implementation to ensure appropriate governance.

2.3.8 Whilst it was also noted at the workshop that black box technologies may have a useful role to play in moderating driver behaviour, the evidence around this is still emerging and this is subject to national legislation. Any adoption of these technologies by the insurance industry would force all drivers to adopt them and is therefore outside the context of work for this road safety programme. In addition, it is well documented that those currently choosing to fit these devices are not those who tend to fall within the higher risk categories of drivers.

2.3.9 Development of speed management schemes-In addition to the behavioural insights projects which are to be taken forward within this overall programme, work is also taking place to review the high risk locations for collisions and KSIs in East Sussex by the ESCC Road Safety Team. A budget of £250,000 has been allocated to this part of the programme and currently work is taking place to conduct speed surveys in those priority areas with the aim of determining whether additional speed management schemes would improve road safety.

This work will be evaluated together with the behaviour change projects and will form part of the final report on overall programme outcomes.

2.3.10 East Sussex Road Safety Programme delivery. The Programme Board, chaired by the Assistant Director of Communities with Senior Officer representation from the County Council, ESF&RS, Sussex Police and Highways England, meets monthly/bi monthly to monitor project delivery. This cross representation is essential to ensure the programme has links with all partners involved in this area of work. A dedicated Communications team resource is also included in the Board which is critical to ensuring partners, stakeholders and the public are fully consulted with and engaged in the programme. The updated implementation plan is attached in appendix 4.

2.3.11 Project Evaluation and Reporting – It is expected that the programme of work will conclude approximately September 2018 (tbc) with a final report on the outcomes of both stands of the work – the speed management schemes implemented and the behaviour change work undertaken with the support of project partners. This end date is currently provisional and may be subject to revision as the exact timeframes for projects will be determined once the final list of projects is agreed. The final evaluation will be supported by expert analysis from the BIT and outcomes will be shared with all project partners pan Sussex.

2.3.12 Whilst it is recognised that the evaluation of behaviour change projects is difficult as behaviour change is incremental and therefore requires analysis over a far longer time frame to account for normal statistical fluctuations and that fully Randomised Controlled Trials are not always applicable to behaviour change work, all the projects to be selected will have clear means of assessing their impact. Evaluation in this area is necessarily more nuanced as it requires understanding the type of behaviours which are associated with a higher predictive risk of being involved in a KSI and assessing whether the intervention has resulted in these behaviours being altered, which suggests that over the longer term, reductions in KSIs will be seen. However whilst evaluation of these schemes requires a more sophisticated approach than more traditional projects, the BIT who will support this aspect of the work have considerable experience in this and encouragingly the successful behaviour change initiatives which they have previously delivered suggests these to be durable and that once a behaviour change has been made, these changes are sustained over the long term.

2.3.13 Following this end of project opportunities will be sought to communicate this work more widely via national meetings and conferences as there is expected to be a great deal of interest in this work from the wider road safety community as this work being undertaken by ESCC is pioneering and innovative. We will work with communications leads within ESCC and partner organisations on this aspect of the work to maximise effectiveness and increase the reach of this work and the profile of ESCC.

### **3. Conclusion and reasons for recommendations**

3.1 This report notes that the single most significant factor in reducing KSIs in East Sussex is to address driver behaviour which includes distraction. The programme of work being undertaken is therefore focused on the development and implementation of behaviour change schemes alongside work on targeted speed management interventions delivered by the ESCC Road Safety Team where evidence supports their effectiveness.

3.2 The Committee is requested to note the progress of the work and strengthening of effective partnership working made since the last report in September 2016 on the development and implementation of the East Sussex Road Safety Programme. The Committee is requested to note in particular the targeting of action at those groups and underlying issues which detailed data analysis has indicted pose the highest risks for KSI and the robust governance arrangements in place for monitoring the implementation of these projects.

3.3 It is recommended that the Committee is provided with a report on the outcomes of the work and the evaluation of all projects undertaken on the East Sussex Safer Roads Partnership at the first meeting following the conclusion of work in September 2018.

3.4 The Committee is requested to note the information provided regarding the establishment of an appropriate KSI reduction target for ESCC and to note that in the interim whilst this review is ongoing, individual targets for each of the projects within the Road Safety Programme will be determined.

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### LOCAL MEMBERS

All