

Road harm index

Collating Department for Transport (DfT) data to understand road harm collision hotspots and guide the work of road safety partnerships.

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Key details

Stage of practice	Untested
Purpose	Prevention
Topic	Digital, data and analytics Investigation Roads policing
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Region	North East
Partners	Police Community safety partnership Education Local authority
Stage of implementation	The practice is implemented.

Key details

Start date	April 2023
Scale of initiative	Local
Target group	Adults Children and young people Communities General public Offenders Victims

Aim

The aims of the initiative are to:

- target collision hotspots across the county
- reduce death and serious injury collisions
- improve joint road safety operations, education delivery and shared collision data

Intended outcome

The intended outcomes of the initiative are to:

- identify road harm hotspots based on Department for Transport (DfT) data using geo-spatial mapping software
- analyse road harm scores in highest harm collision hotspots by monitoring harm scores over a 12 month period to understand whether harm has increased or decreased after a partnership-led initiative has been embedded at that location
- present road harm hot spots to partner agencies (local authorities, Driver and Vehicle Standards Agency (DVSA), fire services, National Highways and Royal Society for the Prevention of Accidents (RoSPA), to understand and decide who is the lead agency to reduce harm through road safety initiatives in these areas

- target patrol activity through officer ARL Radio Data (radio data is the sharing of patrol activity) in the hotspot areas
- target multi-agency operations (local authorities, DVSA, fire services, National Highways, RoSPA and police in the harm hotspots and overlay collision data
- task safety camera van deployments in harm hotspots and overlay collision data to understand what works when it comes to collision reduction
- see a reduction in harm score in these areas over a five year road harm index period. This will be analysed and monitored

Description

The roads policing unit created a road harm index which collated 2022 DfT data (harm costs and emergency service costs). This was done to provide an alternative view of collisions in Cumbria, focusing on the severity of harm rather than just the frequency of collisions.

The road harm index has been linked to Power BI where it can be monitored.

The creation of the road harm index involved calculating the costs of collision in Cumbria.

The force collated five years of DfT to find the costs of, or to:

- casualties
- society
- ambulance response
- police response

These were divided this by 2022 Cumbria collision statistics, resulting in a harm index for different levels of collision, which they separated by:

- damage
- minor injury
- serious injury
- fatal injury

These categories were integrated into the road harm index and provided Cumbria with local collision harm hotspots to aid the delegation of resources.

This information has been shared with Cumbria Fire Brigade and National Highways to ensure partner agencies have a joint awareness of local harm hotspots.

Alongside the road harm index, Cumbria use geo-spatial mapping software to find specific high harm hotspots. This is then presented to partners at the monthly road safety partnership meetings where objective scanning analysis response assessment (OSARA) problem solving is used to delegate agencies to lead in collision reduction in that specific area.

The road harm index is also used to assess the impact of local authority and highway patrol activities by overlaying collision data with marked patrol activity. This has also been used to assess the impact of engineering changes to a collision hotspot to understand whether the change reduced road harm in that area.

Cumbria road safety partnership are undertaking a pilot linked with the road harm index, where Highway Agency Traffic officers will provide an increased visibility in areas identified as high harm, rather than their usual patrol activity which is limited to the motorway.

Overall impact

There has been a small reduction in high harm collisions in one high harm hotspot area which has received daily patrolling from a safety camera van and high visibility patrol from police and National Highways.

Since April 2023 there has been a 17% reduction in fatal collisions across Cumbria.

This has also led to improved tasking around roads policing and safety camera van tasking.

Cumbria's safety camera van is now tasked with patrolling the hotspot areas daily. At least one van will deploy to a hotspot, and this is part of the 'business as usual' deployment model.

Learning

The main learning point is that the police cannot be the lead agency for all collision hotspots. The road harm index can assist in the identification of lead partners.

One challenge was for partners to understand and acknowledge the hotspots and sharing of one performance metric. This was specifically relevant in encouraging highways officers to patrol A-

roads identified as high road harm areas (their national direction is to only patrol the motorway). This was overcome by highlighting the robustness of evidence used in the road harm index, and being persistent in the message that this intervention would reduce collisions.

Best available evidence

The [Crime Reduction Toolkit](#) includes the best-available evidence on [hot spots policing](#).

It also includes other prevention-based interventions to reduce driving-related crime, such as:

- [increased patrols to reduce drink driving](#)
- [drink-driving school-based programme](#)
- [drink-driving media campaigns](#)
- [speed cameras](#)
- [red light cameras](#)

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