Fleet Forum

Fleet Safety Intervention Toolkit

SECTION 1

INTRODUCTION

About this toolkit

This Fleet Safety Intervention Toolkit gives aid and development fleet managers guidance on what kind of road safety interventions work best for improving risk on missions. It is based on research commissioned by Fleet Forum and designed by Dr Lisa Dorn of Cranfield University. This toolkit draws on the results of two research reports published in collaboration with Fleet Forum.

The Fleet Safety Intervention Toolkit aims to support senior leaders working for aid and development organisations to implement an evidence-based approach for fleet risk management by focusing on the at-risk behaviours strongly associated with crash outcomes according to our research. Inappropriate speed, distracted driving and not wearing a seatbelt were reported as the main at-risk behaviours associated with crashes. This toolkit will help you to identify different methods for tackling these behaviours, but each intervention requires the coordinated application of safe systems to influence behaviour within your organisation.

READ ABOUT THE RESEARCH >

How to use this toolkit

This toolkit has been designed for you to consider a range of different approaches when attempting to change driver behaviour.

It provides guidance and a process flow for implementing evidence-based interventions in your organisation.

Case studies show real-world examples of interventions in practice in humanitarian organisations.

A range of interventions are provided to tackle each at-risk behaviour.

The toolkit is an interactive PDF. We suggest you navigate this toolkit using the buttons rather than scrolling.

YOUR FLEET SAFETY PROGRAMME >

SECTION 2 YOUR FLEET SAFETY PROGRAMME

Introduction

Developing an evidence-based fleet safety programme for your humanitarian organisation could reduce human harm, financial loss and reputational damage. Introducing a one-off intervention is unlikely to solve your road safety problems.

To implement a robust fleet safety programme, you need to understand why crashes take place and why current systems are not preventing them. A proactive approach to managing road safety and a cycle of continuous improvement will help your organisation to achieve and maintain a good safety record.

Road safety research shows that long-term effects of interventions may not be possible. Most effects disappear within 3 to 6 months. A road safety programme, with a phased approach and ongoing road safety interventions could deliver longer lasting effects.

Evidence-based interventions

Research shows that the most effective road safety interventions include:

- Group discussions
- Using telematics for driver feedback and coaching
- Using larger trucks
- Seatbelt interventions
- Restricting driving times

Other possible interventions include coaching, improved selection of drivers and a company's safety culture. However, there is a weaker evidence base for these.

A holistic and coordinated approach that uses a variety of methods as part of a coherent fleet safety plan will have the greatest sustained impact. Research shows that long-term effects of interventions may not be possible, with most effects disappearing within 3 to 6 months. To maintain the effects of interventions, you need a phased approach and ongoing road safety interventions as part of a road safety programme.

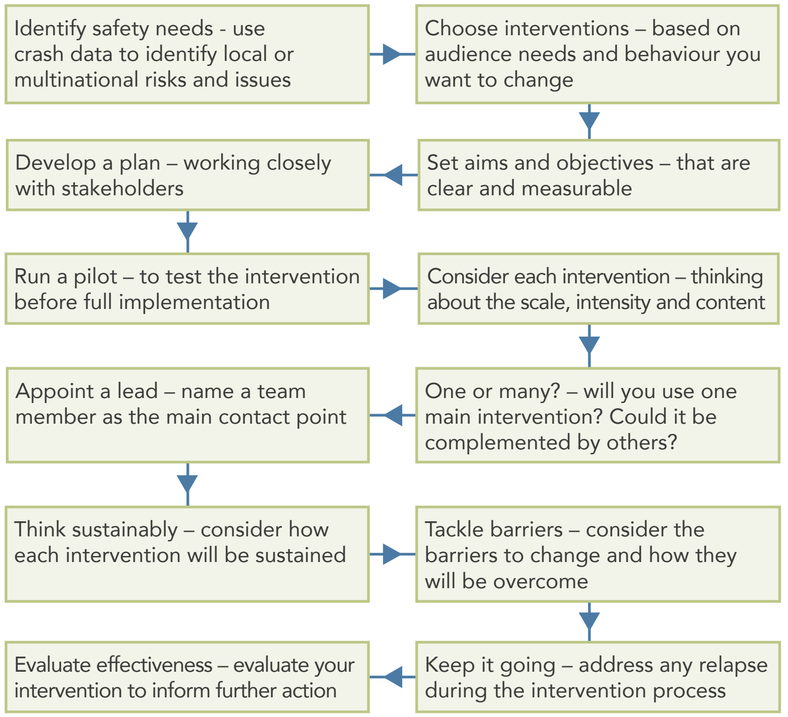
Read more: Traffic Safety in Organisations research report, authors: Dorn and Wåhlberg, 2022, commissioned by Fleet Forum.

Implementing interventions

The following guidelines provide a useful checklist for implementing evidence-based interventions:

- **Local or global?** Consider whether the intervention(s) you choose addresses multinational or local safety needs identified through crash data.
- **The change needed.** Make sure that you choose an intervention based on the needs of your target group (e.g. leaders, supervisors, employees) and the behaviour that needs to change.
- **Set objectives.** Construct clear intervention aims and measurable behavioural objectives.
- **Work together.** Make sure that you work together with stakeholders, partners and interest groups for a coordinated plan.
- **Identify a lead.** Name a member of the team as the main point of contact and responsibility.
- **Part of a wider plan.** Consider how the intervention you choose can be complemented by other measures, including safer vehicles, driver monitoring for compliance etc.
- **Does it fit?** Make sure that the content, scale and intensity of each intervention is proportionate to the behaviour you aim to change.
- **Test it first.** Design a pilot to test the intervention before implementing it at full scale.
- **Make it sustainable.** Consider how the intervention will be sustained over the required time scale for delivery.
- **Overcoming barriers.** Consider the key barriers to behaviour change that may emerge and what action is needed to address them.
- **Long-term impact.** Make sure the intervention(s) include strategies to address relapse during the intervention process.
- **Include evaluation.** Evaluate your intervention according to the steps provided in this fleet safety toolkit

Process flow



SECTION 3 INAPPROPRIATE SPEED

Introduction

Speed is a primary factor in a third of road deaths and a factor in many crashes.

Driving at an inappropriate speed does not just relate to when a driver breaks the speed limit for a given stretch of road. It includes 'excessive speed', but also when driving within the speed limit, but too fast for the prevailing conditions (e.g., inclement weather, reduced visibility, or highly vulnerable road-user activity).

Driving at inappropriate high speeds increases the risk of a crash and means that the crash is more likely to cause more serious injuries to all involved and a greater level of physical damage to the vehicle(s). Other driver errors such as driving too close to the vehicle in front and driving when tired or distracted are also magnified by inappropriate speed. This is because drivers have less time to recognise and react to hazards developing around them.

Case study – One World

One World operates in 60 countries and seven regions across the world. Their 3,000 employees operate a large fleet of vehicles including motorbikes. One World's senior managers identified an increasing problem with high-profile crashes and were concerned about the human and financial cost.

Investigating the problem

They launched an investigation to identify key crash factors. The investigation identified that the majority were due to exceeding the speed limit, as measured by an in-vehicle data recording system. The investigation also showed that employees were travelling at excess speed to meet their work schedules.

Alongside this data, One World surveyed staff attitudes to speed and found that drivers who reported travelling over the speed limit more frequently were also more likely to view being on time as desirable for their managers and the organisation.

Building the business case

Senior managers developed a business case for a three-year road safety programme to reduce speed, targeting reductions in speeding events and risk as measured by Collisions Per Million Miles (CPMM).

One World's Vice President approved the business case and the resources needed.

Implementing the plan

A fleet safety committee was formed with members from across the organisation, including health & safety, HR and operational departments. The programme was launched in 2015 and retrospective data for crash rates was collected as a baseline from 2012.

Before the start of the programme, all senior leaders took part in online training to show how leadership behaviour impacts on speeding behaviour.

In 2015, the first phase of the programme used a wide range of interventions including:

- Toolbox talks
- Online learning
- Improved driver selection procedures
- Improved road safety policies
- Random checks to improve compliance

One World also improved crash reporting procedures to include in-depth investigations for all crashes resulting in injury or death. Quarterly reviews were then required to be reported to the steering committee including emerging risks from each regional road safety focal point.

In 2016, the second phase used a communication campaign to ensure all staff completed all safety activities and compliance checks. Additional interventions included:

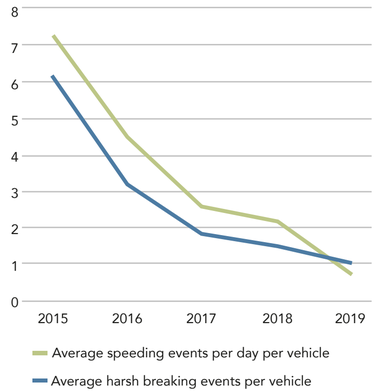
- Driver support groups for peer-to-peer coaching
- Telematics with app-based feedback on speed for all vehicles including motorbikes
- A management reporting system to identify repeat speeding offenders
- High risk drivers and riders were then required to take part in group discussion workshops

For phase three in 2017, communications activity focused on developing a safety culture with regular online messages to all staff to reinforce speed limit compliance.

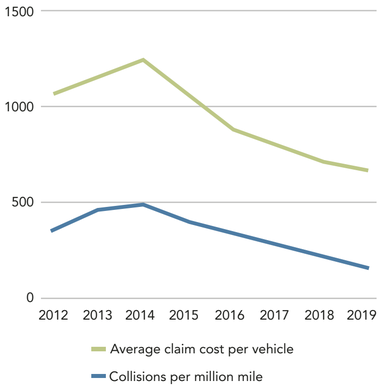
The results

Analysis of telematics data revealed a significant reduction in overall speeding events, harsh braking events and collisions per million vehicle miles compared to the baseline data.

Telematics evaluation 2015-2019



One World evaluation 2012-2019



Evaluation has identified improvements to the implementation of the programme. The results have been shared widely across One World to demonstrate the value of the programme.

INTERVENTIONS

INAPPROPRIATE SPEED

Interventions

Intervention 1 – Committed leadership

At One World, all senior leaders and managers were required to take part in an event in which an expert in safety culture gave a presentation on how leadership behaviour impacts on speeding and crash involvement rates. Following the presentation, the managers took part in various activities to highlight the dangers of turning a blind eye to inappropriate speed.

Before and after the event, a survey was administered to the senior group to benchmark attitudes to road safety and the results were showing a significant improvement in management's attitudes to road safety. The survey was administered once a year during the fleet safety programme and every year, the leadership group were given the results of the survey showing ongoing improvements in their perceptions about safety.

Intervention 2 – Group discussions

Studies show that driver workshops where groups of drivers share their experiences can lead to lasting behaviour change.

At One World, they used group discussion structures including:

- 60 minutes 'warm-up' activity
- 40 minutes discussion to identify fleet safety problems
- 20 minutes discussion of results of previous meeting
- Small group discussion of how to resolve problems
- 60 minutes to plan and commit to future action

Intervention results:

They provide the highest cost benefit of evaluated interventions and reduced crash involvement by over 50% up to two years after implementation (Gregersen, et al, 1996).

Intervention 3 – Telematics

People tend to modify behaviour when being observed. When feedback is provided, true learning can take place. Studies show that telematic feedback has a positive effect on road safety.

In one study in the Netherlands, in-vehicle recorders were installed and half of employees were given feedback on scores and events. The other half of employees received no feedback.

Intervention results:

Using data recorders to provide feedback resulted in a 20% reduction in crashes recorded (Wouters and Bos, 2000).

Intervention 4 – Communications campaigns

Road safety communications campaigns help to influence behaviour, especially when they target specific behaviours like speed. Campaigns are particularly effective as part of multifaceted interventions. They are less effective when they use fear-arousing messaging.

Campaigns based on social science theory were found to result in a 9% reduction in road traffic crashes, providing additional interventions were used to support new behaviours (Delhomme et al, 2009).

Theory of planned behaviour is a popular social science approach. Communications campaigns that consider psychological and social factors will be more effective than awareness raising campaigns. For example, Road Safety Scotland's Foolsspeed campaign was designed to reduce inappropriate and excessive speed in urban areas. Theory of planned behaviour was used to inform three television adverts, each addressing a key determinant of intention to speed – targeting attitudes, subjective norms and perceived behavioural control.

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Intervention 5 – E-learning modules

E-learning modules can be used to tackle the risks of speeding and the underlying factors that can lead to inappropriate speed. Evidence shows the effectiveness of this approach.

In one study, driving offenders took part in a half day workshop and for the following 5 weeks, were required to completed five e-learning modules. Traffic offence rates were gathered for all participants before and after the intervention. Findings showed a significant reduction in the number of offences and penalty points compared with the control group that had only received the workshop (af Wåhlberg et al, 2011).

Intervention results:

Communications campaigns based on social science theory resulted in a 9% reduction in road traffic crashes, as long as additional interventions are in place to support new behaviours (Delhomme et al, 2009).

SECTION 4 MOBILE PHONE USE

Introduction

Legislation around driver use of mobile phones may vary from country to country, but evidence demonstrates that it poses a significant risk to road safety. Improving driver and passenger awareness of the risks of mobile phone use while driving can support interventions to tackle risky behaviour and improve safety.

Case study – Medical Assistance Foundation

An aid and development organisation called Medical Assistance Foundation (MAF) has a fleet of approximately 10,000 four-wheeled vehicles and 2,000 two-wheeled vehicles. Given that safety norms (how organisational members generally behave towards safety) and standards (safety policies and procedures) have been found to have a positive effect on fleet crash reduction (Moser et al, 2001), the road safety committee recognised the need to maintain their strong safety culture.

Over the last decade or so, MAF has significantly improved their road safety record and made important changes to their policies, processes, and procedures. General safety is part of the organisational culture and management takes safety seriously and believes it is their responsibility to manage safety, but that responsibility is shared amongst all members of staff. The MAF approach towards road safety is to focus on prevention rather than cure, so safety measures are adapted to the local regional environment and there is a focus on any emerging risks reported to the committee.

MAF examined road traffic crash trends that had occurred within the previous three years, and then developed countermeasures to combat the problems. As part of the programme, all crashes are reported and studied by management to prevent similar crashes from occurring again. Near misses are used as formal learning experiences. They are reported monthly and discussed biannually. Information about crashes is sent to each office regularly so that they can learn from it. Offices and drivers with no crashes are commended for their record regularly. Sometimes prizes are given for outstanding performance. Traffic safety campaigns are conducted regularly to ensure that employees foresee traffic dangers, using case studies of previous crashes. In particular, previous campaigns on seatbelt wearing and anticipating the behaviour of pedestrians have successfully reduced incidents relating to these driver behaviours.

The policy framework

Medical Assistance Foundation's policy specifies that mobile phones must be placed in a cradle with an approved hands-free system while the vehicle's engine is switched on or at any time while driving. The policy also states that text messages must not be opened to read, reply or send while the vehicle is moving. However, incidents of mobile phone use were reported to the road safety committee.

Understanding the challenge

Senior leaders of Medical Assistance Foundation launched a one-year initiative to address this emerging risk using different approaches. To design the initiative, managers and supervisors in regional offices asked staff key questions during briefings to test their understanding of circumstances under which staff use their mobile phone while driving. Results showed that staff believed that talking on a mobile phone was no more dangerous than talking to a passenger. Staff also believed that having a mobile phone call using a hands-free kit meant that it was safer than handheld.

However, research showed that passengers can better regulate conversation based on perceived risk than someone on a mobile phone. A handheld or hands-free mobile phone conversation was associated with a fourfold increase in crash risk (Charlton, 2009). Also, current policy stated that hands free calls were acceptable and staff briefings revealed that some managers expect to be able to contact staff at any time, even when they are driving.

Designing the interventions

After gathering evidence from the briefings, the road safety committee designed a programme of interventions to tackle the problem of using mobile phones whilst driving.

First, the committee reviewed the mobile phone policy. It had previously stated that hands free mobile phones could be used whilst driving but it was clear that there was still a significant risk from holding a conversation on a mobile phone. The new policy was drafted stating that a mobile phone could not be used at all whilst driving. To ensure that employees understood how important the revised policy was, it stated that failure to abide by the policy can result in discipline up to and including termination.

As this would be a significant departure from the previous mobile phone policy it was decided that drivers and managers would need to be trained and go through a behavioural change programme before the new policy was implemented. A communication campaign also ran alongside the training and behavioural change programme and stickers were installed on dashboards to remind all drivers of MAF vehicles. Before going live with the new policy, all mobile phones owned by MAF were required to have a phone blocking app installed.

Evaluating the interventions

The committee evaluated the programme with reference to the number of times that employees had been caught using a mobile phone whilst driving. At baseline they received 10 reports a month but by the end of the one-year campaign this had reduced to zero. They had also disciplined one member of staff and dismissed an employee to ensure that all staff were aware that mobile phone use whilst driving was being taken seriously.

INTERVENTIONS

MOBILE PHONE USE

Interventions

Intervention 1 – Mobile phone policy amendment

Consider amending your organisation's mobile phone policy. Medical Assistance Foundation changed their policy to set out clearly for all staff what is acceptable.

Intervention results:

Research has identified that changes to policy, processes and procedures can reduce the cost of crashes (Murray, 2003).

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Intervention 2 – Cognitive distractions campaign

Communications campaigns can play an important role in promoting safer mobile phone use. Research shows that they are effective, particularly as part of a suite of interventions. However, fear-led campaigns are less effective as they can lead people to reject the message.

Intervention results:

Communication campaigns based on social science theory reduced road traffic crashes by 9% on average providing additional interventions are in place to support the new behaviours (Delhomme et al, 2009).

Intervention 3 – Cradle stickers

Behavioural nudge theory supports influencing the subconscious or automatic decisions that are often relevant with mobile phone use while driving.

In line with nudge theory, Medical Assistance Foundation produced informative stickers to act as a reminder not to use a mobile phone whilst driving. The stickers remind and guide drivers towards making small changes by presenting different choices to encourage adoption of the desired behaviour.

The stickers used simple, attractive design and were put on the dashboard where they could be seen by the driver. They informed drivers about the three steps to answering a mobile phone call safely.

1. Do not pick up
2. Ask your passenger to answer
3. Stop in a safe place

Intervention results:

Nudge supports the theory that behaviour can be influenced more readily if information about alternative safer decisions can be presented in the physical context of the behaviour that needs to be changed (Thaler and Sunstein, 2008).

Intervention 4 – Phone-blocking apps

Installing a phone-blocking app on all phones belonging to an organisation can have a positive effect on reducing mobile phone use while driving. Apps can block and divert incoming phone calls and messages and restrict user interaction with the device while the vehicle is in motion.

This intervention is particularly useful for fleet-based organisations as they are in a better position to enforce app usage.

Intervention results:

Research showed that the rate of text messages sent per mile driven each month was 5 to 10 times higher in the control group (0.05 to 0.20 texts per mile driven) than in the group using a phone-blocking app (0.0 to 0.02 texts per mile driven) (Creaser et al, 2015).

Intervention 5 – Management and driver training

At Medical Assistance Foundation, all managers and supervisors had to attend a one-day training on the dangers of calling staff while they were driving. The training included activities to demonstrate how holding a mobile phone conversation distracts drivers and leads to increased risk of crashing. Managers were led through the consequences of these kinds of incidents with regards to the human, financial and reputational costs. Then a group discussion led to a series of solutions that could be adopted instead of making calls to drivers.

After all managers had completed the training, drivers took part in two online discussion groups spaced three months apart before a new mobile phone policy was introduced. In the first discussion intervention, drivers were given details about the dangers of mobile phone use and the revision to the mobile phone policy was discussed and presented. Employees were then led through a facilitated discussion on what they can do to ensure they are not tempted to use any devices whilst driving and this discussion led to goals being set. In the second discussion intervention, employees took part in a facilitated discussion about their progress on achieving the goals. Open and honest feedback was sought about circumstances under which they had used their mobile phones whilst driving and employees reflected on what other options were available instead.

Intervention results:

Research shows that group discussion methods for behavioural change can reduce crash involvement by over 50% up to 2 years post-intervention (Gregersen, et al, 1996).

SEATBELT COMPLIANCE >

SECTION 5 SEATBELT COMPLIANCE

Introduction

Traffic law does not mandate the use of seatbelts in all countries, particularly for people sitting in the back of a vehicle. However, research shows that wearing a seatbelt significantly reduces the risk of fatalities and serious injury during crashes.

Awareness of the benefits of wearing a seatbelt, improvements to organisational policy and processes, and vehicle safety measures can all contribute to improving rates of compliance and overall road safety.

Case study – Aid International

Aid International is an aid and development organisation working in over 100 countries.

They identified that most of the deaths experienced by their staff in developing countries happened when the person was not wearing a seatbelt. In some countries, wearing a seatbelt was not a legal requirement, particularly for passengers in the back seats. Aid International's policy states that employees must wear a seatbelt on all journeys, however compliance was low.

The case for seatbelt compliance

Aid International's safety committee gathered evidence to show that wearing a seatbelt is the single most effective road safety measure:

- It reduces the risk of driver death in a crash by 50% (WHO, 2018)
- It reduces the risk of fatal injuries in rollover crashes by an estimated 74% (National Highways Safety Administration)

These facts and figures were contrary to employees' beliefs about seatbelt wearing so the committee decided that several interventions would be required to increase seatbelt compliance.

Setting the objectives

Aid International designed a two-year programme to increase seatbelt compliance by:

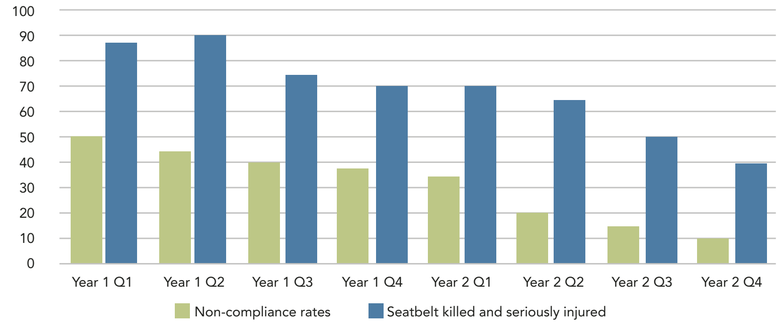
1. Amending the road safety policy to mandate the use of front and rear seatbelts on all journeys by the end of year 1.
2. Ensuring that all vehicles were fitted with working front and rear seatbelts by the end of year 1.
3. Mandating that all taxis and hire vehicles must be fitted with front and rear seatbelts before travel.
4. Mandating that all new vehicles must have seatbelt warning technology installed.
5. Introducing full scale investigations of all fatalities to identify if wearing a seatbelt could have prevented injury or death.
6. Introducing hands-on safety training for all staff using a seatbelt simulator.

Establishing the baseline

During the first month, seatbelt use was monitoring in local areas. Trained observers targeted office and field car parks to measure seatbelt compliance unobtrusively using a handheld device in spot-checks. Compliance rates were reported back to the safety committee each quarter. The month 1 observational data was used as a baseline for seatbelt compliance to measure the success of the programme.

At the same time, Aid International reviewed all vehicles to measure the percentage of vehicles fitted with front and rear seatbelts. This established a baseline. For those without seatbelts, employees were instructed to book them into the local garage as soon as possible. Any vehicles that could not be fitted with seatbelts were entered on a spreadsheet for replacement. The road safety committee requested that all vehicles have front and rear seatbelts by the end of year 1.

Evaluating a seatbelt safety programme



Implementing the intervention

The organisation's road safety policy was amended to clearly mandate the use of seatbelts in front and rear seats on all journeys by the end of year 1. Seatbelt safety tests were carried out to make sure all seatbelts were in good working order. Staff were also instructed that all hire cars and taxis used should be fitted with front and rear seatbelts before travel.

During year one, staff took part in focus groups to tackle myths around seatbelt use. Information gathered was used to design a targeted campaign. Focus groups revealed that employees were often passengers in vehicles in which the driver failed to wear a seatbelt and did not feel confident to tackle this non-compliance. The 'commit to click' communications campaign was designed to tackle this non-compliance with pledge cards, factsheets and real life stories to inspire others to buckle up.

Non-compliance rates and the number of seatbelt related injuries and deaths reduced over the two-year programme. The results were shared widely to reinforce compliance. For those staff who still failed to comply, one-to-one coaching is being designed and implemented.

The results showed a gradual reduction in non-compliance rates in year 1, accelerating in year 2 as most employees took part in the programme. Seatbelt related deaths and crash injuries also reduced during the programme.

INTERVENTIONS

SEATBELT COMPLIANCE

Interventions

Intervention 1 – Seatbelt safety checks

Review the condition of seatbelts regularly to make sure they are in good working order.

Train inspectors to carry out seatbelt safety checks, including retractors and anchorage points looking for corrosion, damage and excessive wear and tear.

Include seatbelt checks in annual vehicle inspection systems.

Intervention 2 – Seatbelt warning technology

In-vehicle technology such as seat belt reminders (SBR) alert drivers if the seat belts in occupied seats are not being used. Most commonly, the reminder is a visual display or an audible alarm.

Intervention results:

The probability of wearing a seatbelt is over 9 times greater when the vehicle is fitted with a SBR system compared with drivers driving in vehicles with no SBR (Farooq et al, 2021).

Intervention 3 – Seatbelt attitude campaign

Increase positive attitudes towards seat belt use to improve compliance.

Begin by observing current seatbelt wearing rates to establish a baseline. Use focus group discussions to understand the reasons why seatbelts were not being used, targeting countries in which seatbelt wearing is quite low.

Design a campaign based on focus group findings to promote the benefits of seatbelt wearing and tackle myths.

Intervention results:

Studies show that compliance doubles after a campaign, but follow-up campaigns may be needed to maintain new behaviours. Campaigns based on social science theory can result in a 9% reduction in road traffic crashes on average providing additional interventions are in place to support the new behaviours (Delhomme et al, 2009).

Intervention 4 – 'Speak out, stay safe' campaign

A communication campaign with several components was introduced to help employees deal with situations in which the driver of a vehicle they are travelling in is not wearing a seatbelt. Called 'the speak out stay safe' campaign, posters in communal staff areas gave employees tips for talking to the driver about buckling up. Messages included:

- Did you know that most people in a passenger seat would rather keep quiet and not tell the driver to put their seatbelt on and drive safe, even when they feel in danger?
- Did you know that our people have been killed and injured because they didn't wear their seatbelt?
- Did you know that if the driver is not buckled up and you have a crash, the force of the crash could mean the driver collides with you in the vehicle?
- Zero to safety in two seconds flat (image showing someone buckling up)

The posters were also linked to a website to spread the message and senior leaders and managers were encouraged to post 'seatbelt selfies along with employees. The website provided tips and advice on how to find your voice when you feel you are travelling with a driver whose behaviour is risky with downloadable PDFs entitled 'What would you say". The flyers depicted scenarios for the development of coping strategies for dealing with situations in which they are travelling as a passenger.

Intervention results:

An evaluation of this approach showed significant improvements in seatbelt wearing (St Louis, 2015).

Intervention 5 – Seatbelts and safety culture

Senior leaders and managers took part in an event to develop a strategy for developing a safety culture and created the mission 'to make Health and Safety a truly dynamic concern for the well-being of every person who comes into contact with our organisation, by integrating all of our systems to achieve a balanced risk-reducing interaction between people and their working environment'.

As part of this event, it was recognised that travel represented the most significant risk to their people and the public. The leaders commissioned the development of high-quality safety training programmes, considering employees' views. The new approach also ensured that employees felt empowered to become actively involved with safety every day.

For some countries, resistance was expected given that it was not the norm to wear a seatbelt. Supervisors were trained to expect resistance and respond appropriately by being clear about what behavioural changes are needed. The supervisors were trained to ask for co-operation, not submission and encouraged the employee to discuss any concerns.

Leaders recognised that the credibility and importance of the seatbelt safety programme must not be undermined through day-to-day operational causes. Line managers were actively encouraged to address non-compliant behaviour.

Intervention 6 – Seatbelt simulator training

Practical hands-on training is more effective than lectures. A seatbelt simulator may be a useful tool for employees to experience first-hand the g force involved in a 10-15 km/h crash and improve attitudes to seatbelt wearing.

The system enables a passenger to safely experience a simulated crash. Use of a seatbelt simulator should be voluntary. People can learn as effectively by watching the demonstration as they can by taking part. People with a nervous disposition or who have experienced road traffic crashes may not want to take part.

Intervention results:

Research shows that those people involved in a crash in the past were almost twice as likely to use their seatbelt in future journeys (Passman et al, 2001), therefore using a seatbelt simulator may encourage greater compliance.

DEVELOPING A BUSINESS CASE FOR SAFETY

SECTION 6 DEVELOPING A BUSINESS CASE FOR FLEET SAFETY

Introduction

The first step in engaging your senior leadership with fleet safety issues is to hold a meeting with them to enable you to put across ideas, discuss them face-to-face and make decisions together.

Use powerful research, statistics, and case studies, preferably using actual crash data for your organisation. Talk about how past crashes have affected employees and the local population.

Consider how the intervention(s) will be funded to achieve the required impact. Ensure time and funds are allocated for an evaluation of the short, medium, and long-term outcomes.

Financial cost of crashes

Measure and understand the following costs:

1. Insurance

a. Annual cost of your insurance policy

b. Insurance claims made including costs paid to third parties and costs paid for own damage

c. Deductible and excess payments for any claims you have made

d. Damage costs paid for crashes that were not covered by your insurance policy

e. Costs of unreported damage found

f. Costs of end-of-life charges for lease vehicles

2. Uninsured losses

Hidden costs will depend on the nature of your organisation and its operation but could include:

a. Absenteeism

b. Late deliveries and delays to programme delivery

c. Lost morale

d. Higher staff turnover

e. Reputational damage

How to calculate crash costs

The most straightforward way of calculating the uninsured losses is to use the known claims costs (e.g., average cost per claim) and use a multiplier of this figure to get an average uninsured loss figure per crash. The International Loss Control Institute state that for every €1 paid out in claims by the insurer, there are €8-53 in uninsured losses, depending on the severity of the incident.

As these multipliers are likely to be difficult to justify, it may be better to use a multiplier in the 2-4x range to calculate your uninsured losses.

You may also like to use the Fleet Forum Crash Cost Calculator to estimate crash costs (see https://knowledge.fleetforum.org/knowledge-base/article/accident-cost-calculator).

Once the average costs per crash are known, and you have an estimate of the uninsured losses associated with each crash, you will know the total cost of risk.

To put this into perspective, you can then calculate how much overall budget you need to cover the total cost of risk. You can express this in terms of how many more food parcels could be delivered or how many more beneficiaries can be reached etc.

Presenting the business case

When you present your business case, ensure that the focus is on how the fleet safety intervention will benefit your organisation. Our research suggests that the human cost and reputational damage of crash involvement were the two main concerns for aid and development organisations.

- Highlight how the human costs has had an impact on the victim, their family, the local population, and members of your organisation.
- Highlight how the reputational damage has impacted on the mission, perhaps by losing the trust of local people.
- Demonstrate the financial losses associated with current crash involvement rates and what could be achieved in terms of delivering aid by improving fleet safety.
- Present the costs of your intervention.
- Identify how quickly the proposed intervention will recover its cost through savings due to fewer crashes.
- At the end of your presentation develop an action plan for next steps.

The importance of evaluation in building a business case

Research commissioned by Fleet Forum found that road safety interventions implemented by aid and development organisations were highly fragmented in content and delivery. Some interventions also had a weak foundation of evidence (e.g., skills-based driver training) and were unlikely to be effective in improving crash rates. The research findings show that it is important to evaluate road safety interventions to make sure you know what has worked and what has not worked so well.

Evaluating your road safety interventions has other key benefits:

- You will improve your performance in road safety
- You will know what road safety policies need to change
- You will make better investment decisions about what interventions bring the best value for money

Evaluations may not have been conducted within your organisation due to lack of expertise in how to evaluate your fleet safety intervention.

This Fleet Safety Intervention Toolkit aims to develop your expertise in conducting an evaluation by outlining the main steps involved. By following the guidance in this toolkit, you will develop greater confidence that your fleet safety intervention will improve crash rates.

Road safety programmes may involve a combination of methods (e.g., group workshop, telematics feedback, communication programme). You may need to evaluate some components individually.

BUSINESS CASE STEPS

Step 1 – What to evaluate

Use this toolkit to select your intervention and design your risk reduction objectives. The interventions in this toolkit are suitable for all road users including motorcyclists. Do you want to achieve better speed compliance, reduced distraction or achieve higher levels of seatbelt wearing? Review your data to decide which behaviours are most associated with risk and select interventions to target one or all these high-risk behaviours.

Step 2 – How to measure impact

Measure the impact of your road safety programme to evaluate if you have achieved your objectives.

For robust evaluation:

- Measure data objectively
- Collect data for at least 4 weeks before and after the intervention period
- Compare the data with a control group that has not taken part in the intervention

Collision Per Million Miles (CPMM) is a widely used measurement of road safety. The formula is: Number of crashes x 1.000.000 (kilometre or miles) divided by the actual kilometres or miles driven in the time period.

Establish a clear, organisation-wide definition of a crash used by all divisions and in all countries. Some incidents may not be categorised as crashes in your evaluation. For example:

- Incidents involving theft of contents from a vehicle
- Glass damage only, such as windscreen damage
- Damage to unoccupied vehicles by natural hazards such as flooding.

Objective data to measure could include:

Vehicle types	All vehicle types including hire cars, employee-owned vehicles
Mileage	For all vehicles used including hire cars and employee-owned vehicles
Crash claims costs	Including third party claims
Injury severity	Such as medical reports
Offending behaviour	Such as traffic penalties
Speed	Using in-vehicle recording equipment

Step 3 – A representative sample

Make sure that you identify a representative sample to measure during your evaluation. Consider whether those taking part differ from other groups working for your organisation. Do they have any vested interest in the success of the intervention or has there been any unconscious bias in their selection? Consider drawing individuals from different (but similar) geographic regions.

Individuals should be allocated to the intervention and control groups randomly.

Step 4 – Evaluation period

Consider key milestones in the intervention to determine the most appropriate evaluation period such as:

- Implementation process
- Desired behavioural outcome
- Nature of intervention eg. short intervention such as single group discussion, or longer intervention such as series of group discussions

Generally, longer term interventions are more effective than short term ones.

Step 5 – Analyse finding

Analysis will depend on the data collected. Statistical analysis will show whether there has been a significant impact compared to a control group who did not receive the intervention. Descriptive statistics such as averages, graphs and tables can be useful to suggest trends.

Step 6 – Process evaluation

Alongside data analysis and comparison of different groups, you should evaluate the process of conducting the evaluation. Were the intended effects of the intervention observed? Were any unintended consequences observed? How effectively was the intervention adopted? This will help you to review whether the intervention was delivered as intended. Lastly, you should carry out a follow-up study to assess whether there has been any long-lasting effect of the intervention.

BACK TO **SECTION 2** ▲ **REFERENCES** ▶

SECTION 7 REFERENCES

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About the research

Read about the research 'Traffic Safety in Organisations' (Dorn and Wåhlberg, 2022) investigated what evidence exists for intervention effectiveness. The research showed that almost all evaluations suffer from lack of control groups and valid outcome variables. However, several interventions including the use of group discussions, telematics feedback and coaching were found to show positive benefits for road safety.
https://knowledge.fleetforum.org/knowledge-base/article/road-safety-in-organisations-intervention-effects]

'Aid and Development Organisations and Safety Culture' (Dorn, 2022) used qualitative analysis to investigate how road safety is managed by interviewing employees working in a road safety capacity for thirteen aid and development organisations. Previous research has shown that safety-related interactions between supervisors/managers and employees led to increased safety outcomes (Zohar, 2002; Zohar and Luria, 2004) and the absence of these types of interactions has been defined as evidence of poor safety leadership. Dorn's (2022) analyses showed how aid and development organisations typically demonstrated poor road safety leadership given the lack of safety-related interactions in the workplace. The results also identified the challenge of operating in multinational and multicultural environments when delivering aid and development programmes.

Participants reported many crashes in which at-risk behaviours are causal factors but only one organisation considered the wider systemic contributory factors in the design of a communication intervention for all levels of the organisation including management. The report concluded that to improve work-related road safety on missions, it is necessary to focus beyond an individual's compliance with safety procedures and instead look to senior leaders to demonstrate good leadership by introducing safety systems and increasing both safety-related interactions and the quality of those interactions. To improve compliance, aid and development organisations must consider the complex and changing interaction between the road infrastructure in which the road user is travelling and the organisational systems that influence road user behaviour.
https://knowledge.fleetforum.org/knowledge-base/article/aid-and-development-organisations-road-safety-culture

BACK TO **INTRODUCTION**

Intervention 4 – communications campaigns

Want to know more?

One of the most popular social science theories is the theory of planned behaviour (TPB). Thousands of studies have shown that behaviours are based on one's intention regarding that behaviour, which in turn is a function of the person's attitude toward the behaviour, subjective norm (what others you care about think about the behaviour) and perceived behavioural control over that behaviour.

Attitude is defined as the individual's overall positive or negative feelings about performing the behaviour in question, which may be assessed as a summation of one's beliefs regarding the different consequences of that behaviour, weighted by the desirability of those consequences. Subjective norm refers to one's perception of whether people important to that person expect the person to perform the intended behaviour, and is represented as a weighted combination of the expected norms of different reference groups such as friends, colleagues, or supervisors at work. Behavioural control is one's perception of internal or external controls constraining the behaviour in question.

A communications campaign that takes these psychological and social factors into consideration will be more effective than an awareness raising campaign.

An example of a 'Theory of Planned Behaviour' campaign

The 'Foolsspeed' campaign by Road Safety Scotland was designed to reduce the use of inappropriate and excessive speed in urban settings. The 'Theory of Planned Behaviour' was used to shape three television ads, each designed to address a key determinant of intention to speed:

1. Mirror use targeting attitudes
2. Friends and Family, addressing subjective norms, and
3. Simon Says, designed to address Perceived Behavioural Control (Stead et al, 2002).

For example, one of the Foolsspeed ads was developed to focus on developing beliefs towards the positive benefits of calmer driving and related to attitude change. In the advert called 'Doppelganger' a man is depicted on his journey to work with his doppelganger. One character drives calmly and without incident; the second character takes unnecessary risks and ends up being reprimanded by the police at the side of the road.

BACK TO **INAPPROPRIATE SPEED**

Intervention 4

Want to know more?

Medical Assistance Foundation changed their policy to state:

"While operating a motor vehicle and working for MAF, employees shall not use the following:

- Cellular (mobile) phones
- Text messaging devices
- Computers or tablets
- Smartphones
- Electronic games
- Headphones

Employees should remember that even if mobile phones are held in a cradle and not used, they could still be distracted by messages appearing on the screen or incoming calls. The policy stated that the phone must be switched off entirely and a message answering service should be used instead.

Hands free mobile phone restrictions do not apply to emergency calls and for communication between vehicles requiring or providing escort, as permitted by local law.

Use of a vehicle navigation system or personal music player is allowed but shall only be programmed when the vehicle is stopped and parked in a safe position.

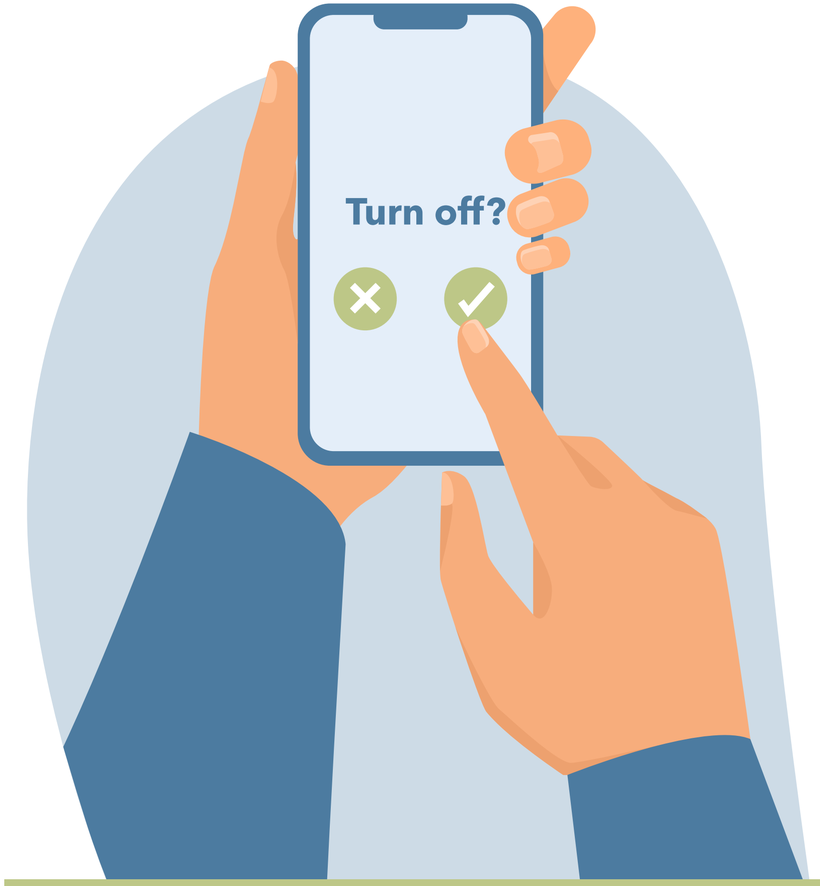
Stopping along the side of a major highway to use a portable electronic device should not be attempted except under emergency conditions. Care should be exercised when exiting and re-entering traffic.

Hand-held mobile phones and other hand-held electronic devices must be stored in a secure location while the vehicle is in motion. Employees traveling with a driver must instruct them not to use a mobile phone whilst driving and to properly secure all loose components to protect vehicle occupants from injury in the event of sudden stops, turns or impact.

Other distractions

Drivers should refrain from activities that could cause the driver to be distracted for more than a moment. Examples of these activities are personal grooming, reading a map, eating, and drinking.

Failure to abide by this policy can result in discipline up to and including termination."



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