1958  Volvo introduces the three-point, lap and diagonal seat belt.

**Minister uses Diana’s memory in seatbelt fight**

“The minister is right. Diana was such a role model that maybe something positive can come out of her tragic death if it convinces young people to belt up.

“There are a lot of lessons to be learnt from the crash, in terms of going too fast, drink driving and wearing seatbelts.”

**Edmund King**, AA President
(Sunday Times, 2 November 2008)
One of the most famous people in the world, Princess Diana, would have lived if she had worn a seat-belt according to Lord Stevens, the ex Metropolitan Police commissioner.

This strong message should be a warning to anyone who gets into a car without belting up - yet many lives are wasted due to car occupants not using seat-belts.

Two years ago the then road safety minister broke with convention by citing the crash that killed Diana, Princess of Wales in Paris in August 1997, as a warning of the dangers of not wearing a seatbelt.

Speaking on the eve of a television campaign on seatbelts, Jim Fitzpatrick said:

“The former security officer wearing a seatbelt lived whereas Henri Paul, Dodi Fayed and Diana all weren’t wearing seatbelts and they paid the ultimate price.

“There’s so much sensitivity about Princess Diana because of her memory, but the period between then and now is quite significant. As an example, it couldn’t be more graphic.”

Fitzpatrick was the first minister to raise the road safety implications of Diana’s crash, but in 1998 Edmund King, now president of the AA, broached the subject when he suggested that wearing a seatbelt could have saved Diana’s life.

History of Belts

1913 A pilot who survived a seaplane crash proposes that occupants of vehicles involved in crashes, should be restrained.

1930s US physicians begin to fit belts to their own cars and start calling upon car manufacturers to do so too.

1950s The first calls for compulsory belt use. Some countries start setting standards for belts in cars - all belts in passenger cars are lap belts at this time

Some racing authorities mandated belts in competition cars at this time but it is unclear whether these were lap belts or the harness type used in aircraft and racing cars today.
1956  Volvo introduces the first diagonal belts in passenger cars, while Ford and Chrysler in the USA start to offer front seat lap belts as an option on some models. They even run advertising to highlight the increase in safety this would bring.

1958  Volvo introduces the three-point, lap and diagonal seat belt. Things now gather pace on both sides of the Atlantic, with the first American states requiring the fitting of two point belts in new cars.

1965  Britain requires the fitting of seat belt anchorage points in new cars.

1967  Britain requires belts to be fitted to front seats of new cars. The law was later changed to require post-1965 cars to be fitted with front belts retrospectively.

Technology moves forward with the development of the inertia reel seatbelt, (standard today) which allowed more movement for drivers, yet locked in an emergency. These were much more attractive to users than the fixed belts that needed to be adjusted manually.

The fitting of rear seat belts becomes more common around the world – and was even being made compulsory in some countries.

1970s  Australia introduces law making use of seatbelts compulsory – European countries followed.

This coincided with the Arab Israeli war and great increases in petrol prices which led to states restricting speeds and drivers reducing car use. Some would later claim that casualty rate reductions during the seventies were due to this, not to seat belt use.

In the coming years the pattern continued. More states required the fitting of belts, front and back. Inertia reel belts became the norm, while wearing requirements spread around the world. But there was not much progress in Britain.

Worldwide experience began to suggest that wearing a belt halved the risk of death in an accident.

In Britain the use of seat belts was promoted with the Jimmy Savile "Clunk-Click" campaign.

Also at this time, AA roadside surveys showed seat belt wearing rates to generally be around the 30% mark - rising to 40% when the campaigns were running.
People who never wore seat belts were matched in numbers by people who always did. Around 40% wore belts sometimes.

**1973** The first of twelve failed attempts to require compulsory use of seatbelts in the UK. It failed through the dissolution of Parliament for the 1974 General Election.

Many subsequent attempts at passing legislation all failed for one reason or another.

Groups against the wearing of belts – usually arguing personal liberty to choose, rather than that belts were ineffective – used nearly every Parliamentary trick available to stop the law being passed.

But this also meant that the organisations that wanted a law – including the AA, BMA, RoSPA and others were working ever harder on the arguments.

AA research showed that while only 47% of the population wanted a law, around 30% were *don't knows*, and 68% believed that *seat belts really would save lives*.

The AA Committee threw itself behind calls for a law having seen that even well funded campaigns – *Clunk Click* - were struggling to get the wearing rate near the 50% mark.

Informed opinion at the time was that a seat belt law would cut the then 6000 road deaths by up to 700.

**1981** At the thirteenth attempt, in 1981, a law requiring front seat occupants to wear seatbelts was introduced – Lord Nugent of Guildford, the then President of ROSPA managing to amend the Transport Act at the last minute to take in the amendment. This move did not have government support, but the timing left the government having to accept the change if the whole Bill was not to fail.

**1982** There were 5937 road deaths in Britain, and the number was rising\(^1\).

**1983** Regulations were introduced and the seat belt law came into effect, as a three year trial (from 31 January 1983).

AA studies showed that pre-legislation advertising helped increase the seat belt wearing rate from 30% to around 50% the day before the law came in. The next day an AA survey showed it was around 95% and has stayed there ever since.
Road deaths fell by just under 500 in 1983 (1) but there was a rise in pedestrian and cyclist deaths, provoking many to argue that because drivers felt safer themselves they had taken more risks, killing others. However, extensive statistical work disproved this.

1986  Seatbelt rule was made permanent.

1987  Rear seat belts had to be fitted in all new cars in Britain - in reality almost all had had them for some time.

1989  Seat belt wearing by rear child passengers becomes law in cars where appropriate restraints have been fitted and are available.

1991  Adult passengers required to wear seat belts in the back of cars.

Since the early 1990's technological advances have continued, with airbags, retractors and 'smart' belts, all combining to provide ever more effective way of protecting car occupants.

Modern research suggests that seatbelts now cut the chances of someone wearing one being killed in an accident by around 60% (2).

**Wearing Rates**

Very few people are now legally exempt from wearing belts, while there remains a theory that those who do not wear belts are those most likely to take risks.

AA studies at the time of the introduction of the seat belt law showed around 95% of drivers to be wearing belts, usually with lower rates in town centres and higher rates out of town.

AA studies stopped in the late 1980s as it became increasingly difficult to get samples large enough to measure the small changes that each year brought. Tinted glass, coloured seatbelts, less formal dress and the use of head restraints all made it much harder to be sure a driver wasn’t wearing a belt too.

At about the same time the Department of Transport set up a survey regime, through TRL which surveyed in larger numbers (up to 29,000) and from more representative locations.

Since the change of survey, seat belt wearing by drivers has risen slowly from 90 to 95%. (3)

Front seat Passenger wearing rates have moved from 94 to 96%, before dropping back a little in the last year. (3)
Adult rear seat passenger wearing rates have moved more markedly – from the mid-fifties to 88%. (3)

Clearly more people are now wearing belts but the situation is more complex than that.

**Wearing Rates among Road Casualties**

This is notoriously difficult to monitor. When the police arrive at the scene of an accident drivers have often left their cars, and the investigating officer has to take the word of those involved, or record that seat belt wearing is 'not known'.

Eventually the recording system was abandoned because the figures were being dominated by 'not known'.

**Car Occupant Deaths**

Fatal accidents are investigated with much greater rigour and post mortem examinations and inquests provide insight into whether injuries are consistent with seat belt wearing or not.

If seat belt wearing had no effect on saving lives, then the proportion of occupants killed not wearing belts should equal the proportion of occupants observed on the roads not wearing belts - about 7%.

But research shows that seat belts more than halve the risk of death in a collision (2), so it would be reasonable to expect that the 7% of people not wearing belts would comprise about 15% of road deaths.

But official figures show that some 34% of car occupants killed in collisions are not wearing belts i.e. more than twice the percentage predicted. (4)

The evidence suggests that the sort of driver who chooses not to wear a belt is twice as likely to be involved in a crash as one who does wear a belt.

If this is true it would mean that the simple expedient of checking if a driver is using a belt would also identify 'crash magnets'. This could mean that seat belt enforcement is worth much more than just saving the lives of those who wear belts.

There may be other factors at play however.
Who Doesn’t Wear Belts?

Observational studies also categorise non-wearers by age, gender and the type of vehicle they are driving.

There is little difference when balanced with the age of the driver

- 94% of young drivers (3)
- 95% of middle-aged (3), and
- 96% of older drivers (3) wear belts

Front passenger wearing rates have been slightly better than for drivers, while rear seat wearing is considerably worse.

People of 14 and older – those who are legally responsible for wearing a belt – were only found to be wearing a rear belt on 70% of occasions. (3)

Wearing rates for rear seat child passengers remain consistently high.

Women are more likely to wear belts than men, although among children the pattern is just reversed, with boys just more likely to wear than girls.

For all types of car user, wearing rates are higher when the speed limit is over 40 mph that when the speed limit is 40 or less. Whether this reflects the speed limit or that car occupants in higher speed limits are travelling further is a key question.(3)

It is unlikely that drivers put on and take off belts as the speed limit changes, while length of journey is cited as one of the criteria used by some car occupants in deciding whether or not to wear a belt.(4)

Other Vehicle Types

Seat belt wearing rates are much lower in other vehicles – vans, lorries, buses, coaches and minibuses.

In these only 69% of drivers and between 61 and 68% of passengers wear belts. (5)

A survey carried out for the Department for Transport in 2009 found that:

- 95% of car drivers in Scotland wear seatbelts;(5)
- 23% of bus, coach and minibus drivers in Scotland wear belts;(5)
- 58% of lorry drivers in Scotland wear belts;(5) and
- 82% of van drivers in Scotland wear belts;(5)
- Car passengers belt up more often than those in other vehicles. (5)
When the seat belt law was first passed, there was an exemption for local delivery drivers in a vehicle designed for that purpose. This became an excuse for many van drivers not to wear belts though and the law was eventually changed to remove the exemption – now drivers making deliveries are only exempt if they are travelling less than 50 metres between stops.

This may still not be widely understood however and there may be a need for renewed education, especially within businesses employing van drivers.

**Attitudes**

There is a limit to the information that can be gained from observational studies alone – they can count who doesn’t wear a seat belt but can’t tell us why they don’t.

In 2008 the Department for Transport ran a series of discussion groups to try to better understand seat belt wearing and to help direct advertising and enforcement campaigns. The results were published in November 2008 as *Strapping Yarns – Why People Do and Do not Wear Seat Belts*. (4)

This focussed on the groups shown by observational studies to have lower wearing rates:

- men (especially young men)
- rear seat passengers, and
- goods vehicle and company car drivers

It was discovered that these groups tended to be less likely to wear belts late at night or early in the morning.

While this may be because it is the time of day when the young show off, or when drivers have been drinking, it is far more likely that wearing rates are lower in the dark simply because the law is harder to enforce – a policeman cannot see that a belt isn’t being worn.

This study also found that there are very few people who just don’t wear belts.

It seems that about 14% of the adult population are 'intermittent' belt users – sometimes they do, sometimes they don’t. (4)
Intermittent Wearers

There is a difference of opinion over intermittent wearers. Some say they are a group who need reminding to wear belts – others say they are a group who do think about wearing belts, but for one reason or another choose not to.

Most new cars sold in the UK and Europe are now fitted with some sort of seat belt reminder system for the driver and front seat passenger. This is largely because in 2006 Euro NCAP, the New Crash Test Programme started giving car manufacturers extra points if such systems were fitted as standard. Euro NCAP’s view is that car occupants will only benefit from all the improvements in car secondary safety (crashworthiness) if they are correctly belted and that a ‘persistent’ reminder will help achieve this.

But results from the Department for Transport study show that most non-wearers make a conscious decision to wear or not wear a belt.

Where they are going, who they are going with, and under what conditions all play a role in making a decision.

'Strapping Yarns’ included the following quotes:

- it depended on “who I’m with, only going down the road, yet on longer journey I will always wear” (young men focus group)
- “It digs in my neck, not very flattering, you’re forever pulling it” (female passenger group)
- “If you’re on your own in the back you can’t stretch out if wearing” (male teenager group)
- “If you’re sitting in back its because someone is in front and you want lean forward to talk to them or you get left out” (female teenager group)
- “You subconsciously do a risk analysis before you get in” (young men group)
- “You’re more likely to (wear) in a small car” (female teenager group)
- “When I’m in the back of a car I just don’t tend to put the seat belt on, may be to do with spacing, you don’t think you’ll go through the windscreen” (young men group)
• “If I’m in the front I feel there’s something totally missing, I don’t feel secure, whereas in the back it’s totally different” (female passenger group)

Bigger Penalties?

A number of remedies have been suggested to tackle those that don’t wear belts.

On 29 June 2009 the fine for not wearing a seat belt was raised from £30 to £60. Although there was some publicity at the time, it is unlikely that many people actually know the penalty.

The idea that not wearing a seat belt should attract penalty points is one of the most commonly suggested measures but this would require a number of legal and fairness issues to be overcome.

The belt law is binding on car occupants (not just drivers), but the introduction of penalty points would mean there were significant differences in the severity of punishment for drivers and passengers with driving licences and those without. Separate offences for drivers and passengers would be one way of addressing this.

Most employers regularly check employee driving licences and look at licence endorsements – particularly for a prospective new employee. So endorsements do have a secondary enforcement value. How would an employer, or potential employer, look upon someone who had had their licence endorsed for driving without a belt?

Employers’ attitudes could also harden, making drivers think more about the legal consequences of breaking the law if arguments like "drivers who don’t wear belts are twice as likely to have an accident" could be substantiated and publicised.

These days companies and insurance companies don’t like high risk drivers.

Education, Training and Campaigns

In recent years the emphasis on dealing with motoring offences has moved from punishment to rehabilitation with many police forces offering retraining courses for drivers committing minor offences for the first time.

Seat belt offences could easily fit into this regime and pilot schemes have started, but only time will tell whether it will cut offending levels.

Courses are popular with drivers who have been caught. Between September 2009 and June 2010 the courses run by Thames Valley Police
have been taken up by 66% of the drivers offered them. To the driver, a twenty five pound fee and no conviction is doubtless better than the conviction and the full £60 fine.

Variable Message signs on motorways and main roads in England and Scotland regularly carry seat belt reminder messages.

The Department for Transport THINK! campaign has also been active in promoting seat belt wearing. The THINK! website states:

- In a crash someone not wearing a seat belt is more likely to die than someone using one. In 2007, of the 1,432 car occupants killed, research indicates that some 34% were not wearing a seat belt.
- While few people admit to regularly travelling without a seat belt, research shows that 24% of people admit they sometimes don’t wear a seat belt when travelling in the back, and 10% in the front. There is also evidence that people are less likely to use seat belts on short or familiar journeys or at low speeds. This puts them at serious risk of injury in a crash.
- You are twice as likely to die in a crash if you don’t wear a seat belt.
- Nearly 300 lives would almost certainly have been saved in 2007 if all car occupants had been wearing a belt. Roughly, that's one life a day.

**THINK! Seat Belt Strategy**

The Department for Transport has been promoting the use of seat belts since 1973, long before it became compulsory by law to use one.

THINK! continues to reinforce the message for new generations of drivers and passengers. The latest (February 2010) campaign used a mixture of powerful TV, radio, cinema and outdoor advertising, supported by an online seat belt crash simulator that shows the real effects of not using a seat belt at different speeds.

However expenditure in this area is likely to be greatly reduced due to cuts in government budgets.

**Conclusion and Recommendations**

Seat belts save lives so more needs to be done to convince drivers and vehicle occupants to always belt up.
The AA recommends:

- Government should consider increasing the penalty for drivers not wearing seat belts to include penalty points.

- Police should be encouraged to carry out more spot-checks particularly of back seat passengers.

- Police forces should offer seat belt education courses in lieu of fines.

- Drivers should insist that all their passengers belt up.

- Employers should be stricter with professional drivers who don’t belt up.

- Government, local authorities and emergency services should continue seat belt campaigns.

- Lessons should be learnt from the tragic Diana car crash.

- Variable messages should tell drivers that in one third of deaths the occupant was not wearing a seat belt.

- Driving instructors should reinforce the 'Clunk Click every trip' message at every driving lesson.

- TV soap operas should publicise the importance of seat belts in story lines.

- Wherever people are interviewed riding in a moving car they should be clearly shown to be wearing a seat belt.

References


(3) Transport Research Laboratory, various years, Restraint Use by Car Occupants, Crowthorne, UK.
