ETHEKWINI has a well-earned reputation as a great place to live, work, play and visit, but unless we work together to reduce road trauma, the quality of life we enjoy is at risk.

Two people are killed on Durban’s roads every day and there are 60 000 crashes a year.

There has been an improvement in the past few years, but we need to do better.

After all, “accidents” don’t just happen. They are caused by errors or selfishness. So let’s call them what they really are – crashes – so we can work to fix things.

How are we going to do this?

The eThekwini Road Safety Plan spells it out. It explains the problem and gives detailed solutions. It explains that road engineering and changes to vehicles will help, but people disobey road rules and make mistakes so behaviour has to change too.

A practical and efficient road network is being built, but people must be shown how to use it. Here, enforcement agencies have a big role to play, but they can’t be everywhere – road users must do their bit too to reduce crashes.

It’s a big job because eThekwini is a big place – and growing. It’s also diverse.

The municipality includes urban and rural areas so its 3.6 million people live close together in some places, but are scattered elsewhere.

Some are old and others young; two in every five people rely on public transport while the rest have their own transport or walk.

The Road Safety Plan deals with traffic engineering, policing and education, but it is part of other, bigger City plans that together work to balance the competing needs of everyone in eThekwini so that resources can be best used for the good of all.

The plan helps people in all the municipality’s departments to work together to reduce road deaths and injuries. It also fits in with the National Department of Transport’s and the United Nations’ road safety goals to halve road deaths and injuries and to improve public transport.
Safest is the target

Principles at a glance

- Expect mistakes. Crashes happen even when people obey road rules, so the system must be improved to reduce death and injuries and to help people after a crash.
- The human body is fragile so speeds must be reduced and cars and roads made safer to give people a better chance of survival.
- It's everyone's job to improve safety. Pedestrian, drivers and designers of roads and cars all must play a part.
- The safety of all parts of the system – roads and roadsides, speeds, vehicles and road use – need to be improved so if one part fails other parts will still protect the people involved.

System takes total approach

ETHEKWINI’S Road Safety Plan follows what’s called the Safe System Approach.

The system, which is used in many countries, says it’s wrong to accept death or disabling injury as the price we must pay for transport. It works to control roads, vehicles and speed and to limit human error.

Part of the solution lies in designing safer roads and cars. This makes crashes less likely and less severe.

The right speed limit needs to be set for a stretch of road and adjusted when necessary.

Getting people to stick to speed limits is vital too. To help this happen the following things are needed: proper collection of crash details so problems can be spotted and tackled; better control of licensing; good laws supported by policing and the courts; education; and good after-crash care.

It’s hard to get people to change their habits, that’s why education is important.

Road users need to know the laws and that if they break them that there is a good chance they’ll be caught and face a stiff penalty.
ETHEKWINI’S population is growing and there are more vehicles on its roads – up by 23% from 713,272 in 2007 to 880,174 in 2016. Despite this, there has been a big drop in deaths and serious injuries, from 4,303 in 2007 to 2,838 in 2012. But after 2012 the numbers have stayed much the same. There has also been little change since 2012 in the number of crashes that did not involve injuries. Pedestrian deaths and serious injuries peaked in 2007 (2,935) and fell to 1,751 in 2013. There has been a gradual increase since then, with 1,966 casualties recorded in 2016.

Despite pedestrians being banned from freeways, 24% of all pedestrian deaths occur there. Half of all fatal and serious casualties are pedestrians. About 61% of all road deaths are pedestrians. Driver deaths account for 23% and passengers 16%.

Reducing speeds, curbing drink-driving and getting people to wear seat belts can cut deaths and injuries in all of these categories.

A disproportionately high number of taxis and trucks are involved in fatal and serious injury crashes. About 9.3% of vehicles on the road are taxis, yet are involved in 18.3% of fatal and serious crashes. Only 4.6% of vehicles are trucks, but they are involved in 7.3% of crashes.

Special enforcement, education and communication projects aimed at the freight and minibus taxi industries could help. All age groups are involved in crashes, but young adults (20 to 34) and children aged five to nine are more likely to be among the dead and seriously injured.

A special effort is needed to improve the safety of children.
### Fatal and Serious Casualties by Crash Type

- **Vehicle/pedestrian**: 9,387
- **Single vehicle**: 3,179
- **Same direction**: 2,977
- **Opposing direction**: 1,534
- **Right angle**: 1,329
- **Other**: 299

For the period 2012 to 2016

### Age of Drivers in Fatal and Serious Crashes

- **70+**: 158
- **65-69**: 194
- **60-64**: 382
- **55-59**: 574
- **50-54**: 818
- **45-49**: 1,041
- **40-44**: 1,426
- **35-39**: 1,751
- **30-34**: 2,325
- **25-29**: 2,435
- **20-24**: 1,553
- **15-19**: 200

**SERIOUS**: One-third (33%) of the drivers involved in fatal and serious crashes were under the age of 30 for the period 2012 to 2016.
SAFETY WATCH: Pedestrians constituted 61% of road deaths from 2012 to 2016, followed by drivers at 23% and passengers, at 16%.
Out of all proportion: minibuses and trucks are more likely to crash

Minibuses and truck crashes are over represented compared to the number of vehicles on eThekwini roads. Source: Fatal and serious crash figures by vehicle type for 2012-2016.

Percentage of fatal and serious crashes involving minibuses: 18.3%

Percentage of crashes involving trucks: 7.3%

Trucks as a percentage of vehicles on eThekwini roads: 4.6%
What it costs us each year...

CRASHES claimed 620 lives and caused 3671 serious injuries in eThekwini each year over the past decade. This cost R5 billion each year, including medical costs and damage to property. It’s hard, though to put a cost to the trauma and grief victims and their families suffer or to measure lost skills and potential.

Crashes also increase congestion and journey time for other road users. In 2015, crashes cost the country R142.95 billion – about 3.4% of the value of all goods and services produced.
WE are all members of different, often overlapping groups. These include ethnic, gender, education, job, religious and political groups. The culture of the groups we belong to shape our values and common beliefs and guide our actions. It determines how we understand each other and behave towards one another.

When it comes to road safety, our cultural beliefs and values affect how we interact with others on the road. We all want to be safe, but this may require limits to our freedom and we don’t always agree to this. Depending on our cultural group, we may have different views on what is acceptable risk taking. We may differ too on what is the right balance between road rules and personal freedom.

It can be hard to convince people that they need to change their deeply held cultural attitudes when these stand in the way of improved safety for all road users.

Some people seem unconcerned about crashes and injuries. Why is this so?

Perhaps because the risk of an individual road user being killed is relatively low. Individual road users also tend to believe they are in control – that they are skilled and that crashes are caused by somebody else, never them.

Drivers often feel anonymous and that they are not responsible for the safety of others on the road.

Alone in their vehicles, they don’t feel a need to cooperate or obey traffic laws.

People also fail to realise that even if it’s only them who is hurt in
a crash, others are affected. They may not realise that crashes have a cost to society, including medical care and unemployment insurance payouts.

Another reason why it’s hard to shift people’s cultural attitudes on safety is because crashes are commonplace and often involve only a few people. For this reason they seldom make news headlines.

All these things make it tough to change traffic safety culture, but it can be done.

For starters, we have to get people to expect much higher safety levels on our roads.

We must back this up by getting them to change their behaviour and values so that they obey road rules.

A concern for road safety needs to shape transport decisions taken at all levels. The Safe System Approach works by bringing together plans for vehicles, roads and road users.

It needs the community to get involved – people and their councillors – to tackle crime, antisocial behaviour and other things that hamper road safety.

Organisations have an important part to play too in helping to foster a road safety culture.

The municipality has its eye on a number of programmes to transform road safety culture. These include identifying volunteers and champions and developing a cellphone app so road users, including taxi commuters, can report bad drivers. Other programmes include promoting a road safety culture in society and municipal departments.
Getting plans into gear

ETHEKWINI uses crash data to identify what is most in need of attention and to work out what must be done.

Targets and goals are set to encourage action and to measure results. The targets are reviewed later to shape future plans.

The action plan focuses on a number of broad areas.

These include: promoting a road safety culture; pedestrian safety; speed management; eliminating hazardous locations; collecting data and research; traffic enforcement; road closures and incident safety management; and road safety initiatives for minibus taxis, driving schools, schools and freight routes.

There are 36 programmes to tackle these areas, but because this is such a big project and resources are limited, priorities must be set. The municipality draws on the expertise of officials from its own departments and government agencies, including transport, health, police, justice and urban planning. Non-governmental organisations and the private sector play an important part too.

A road safety coordinating committee oversees the efforts of four working groups: traffic law enforcement; road safety engineering; learner road safety; and programme specific groups.

Strong partnerships are needed so that everyone knows what to do to help the plan work well.
PEDESTRIAN deaths and serious injuries are the biggest road safety concern in eThekwini, accounting for half of all fatal and serious injuries and 61% of deaths.

Currently 24% of pedestrian fatalities occurred on the freeways, despite only 4% of all pedestrian crashes occurring on freeways in the municipality.

About 40% of those who die on South Africa’s freeways are pedestrians – nearly double the 22% in the rest of the world.

Part of the reason for these high figures are the many informal settlements near freeways. But there are other reasons and we need to understand these so we can improve pedestrian safety.

For example, many pedestrians do not use footbridges or dedicated crossing points because they fear being mugged at such places.

The speed at which cars travel on freeways means any crash with a pedestrian is likely to end in death.

Drivers often don’t expect pedestrians on freeways, as they are banned from freeways. At night motorists can’t see pedestrians or when they do there’s little time to avoid them because of the speeds involved.

Poor walking habits are another reason for South Africa’s high pedestrian death figures. Often pedestrians walk with their backs to the direction of traffic. They also tend to take the shortest route so if they think a footbridge is too far away, they won’t use it.

Many pedestrians are exposed to dangerous situations when informal settlements develop in inappropriate places.

Freeway pedestrian crashes are often dispersed, so an entire length of road may need to be studied to...
understand the problem.

The first step is to identify what is affecting pedestrian safety.

A kick-off meeting of stakeholders can be a good way to get people to help identify problems and find solutions.

Data must be collected. This can be from police records, interviews with residents and drivers, crash data, traffic and pedestrian volumes, speed data and behavioural data.

It can then be studied and the most pressing pedestrian safety concerns identified.

There may be common reason for crashes and the fix might work for a corridor or a whole network.

On the other hand, action might be needed at a single site.

With reliable crash data it is possible to work out which crash spots to tackle first.

Often the priority is the place where people are hurt or killed most often.

According to eThekwini figures, 10% of fatal and serious pedestrian crashes occur in the central business district. This is because there are many people in the CBD, some of whom cross roads wherever they like, with little regard for traffic and traffic signals.

At the same time, many drivers disobey traffic laws. They ignore red traffic signals; stop illegally to pick up or drop off passengers; use the wrong lane when turning; and drive too fast for the number of pedestrians about.

The municipality has a number of programmes to tackle pedestrian safety.

These include:

• Setting up pedestrian safe zones in busy places;
• Engineering and awareness interventions in the CBD;
• Increased policing; and
• Building more sidewalks and putting in traffic calming measures.

MINIBUS taxis are a vital part of the public transport system, but they are driven hard, fast and often overloaded. In the fierce competition for fares, safety often takes a backseat and passengers are compromised.

Minibuses are involved in 18% of fatal and serious injury crashes yet account for only about 9% of the vehicles on eThekwini’s roads.

Improving the attitudes of drivers is at the heart of the municipality’s plans to improve commuter safety.

The municipality is working to develop a public transport service improvement programme.

It will incentivise operators and use vehicle monitoring devices. Commuters will be able to use a cellphone app to report bad driving and other safety issues. The app will give commuters information on their driver and taxi.

A minibus driver road safety awareness programme is in the pipeline too.

It will encourage taxi drivers to take a more professional approach to their work, improve attitudes and reduce risk taking.
SPEEDING is a factor in one-third of all crashes worldwide.

Statistics for eThekwini show that 21% of fatal and serious injuries happen when a vehicle overturns, is involved in a head-on collision or hits a fixed object. In many cases speeding is a factor.

We all need to slow down, but instead people are driving faster as cars and roads get better.

Policing has long been at the centre of speed management, but a mixed approach is a better way to get people to stay within the speed limit. Enforcement needs to be combined with education so people change their behaviour, while road engineering can be used to slow traffic and separate vehicles from pedestrians.

The right speed limit must be set for a particular stretch of road, in keeping with its use. Additional lines, road studs and signage may be needed to better guide drivers.

**Municipal programmes include plans for pilot projects at high crash sites where road engineering can be used to reduce speeds.**

Mobile and fixed cameras have been identified as an effective way of enforcing speed limits.

The plan is to put in more cameras to help catch speedsters, who once penalised are less likely to speed again. The presence of cameras also tends to slow traffic.

The public needs to be reminded of the importance of keeping within speed limits. This can be done through awareness campaigns, but these should be researched if they are to hit the mark.

Roadblocks are also useful for getting the message across, while media releases and advertisements tend to be more effective if they put a human face to the problem.

**Speed management**

**Cameras put the brakes on speedsters**

SAY CHEESE: The presence of cameras tends to slow traffic.
OVER one-fifth of fatal and serious pedestrian crashes near schools involve children under the age of 15. And in crashes across eThekwini, 17% of victims who died or were seriously injured were children.

Education at school plays an important role in tackling the problem, but children also need practical experience to develop skills. They need to be helped to develop judgment and timing, to be trained to look and listen for clues that a vehicle is approaching.

The municipality has been involved in a pilot Safer Schools programme. It combines education for schoolchildren with teacher training and putting in infrastructure.

The safety of children walking to and from specific schools is rated under the Safer Schools programme and countermeasures are then considered. The cost of these will be calculated and once the plans are in place they will be measured to see how well they have worked.

A dedicated primary schools programme involves visits to about 20 schools a week, with presentations in English and Zulu.

Infrastructure includes installing and maintaining speed humps, road markings and signage near schools. It’s part of a dedicated engineering interventions programme.

A learner transport programme is being developed. It will use incentives to improve the attitude and behaviour of drivers and operators earning a living by taking children to school. The plan is to get these drivers to have professional driving permits and to lay down specifications for their vehicles.

Also on the cards are driver monitoring devices and software to keep tabs on things like speeding and harsh braking.

Meanwhile, the training of traffic wardens and scholar crossing assistants continues. But this and other related programmes need the help of parents. The municipality plans to drum up support through meetings and by using social media.

This should also make parents better road users.
HEAVY vehicle crashes most commonly happen when a single truck leaves the road. Driving too fast and the poor condition of trucks, especially brakes, increases the chance of this happening. And when it does, truck drivers are often not wearing seat belts and their cabins give them poor protection. Their driving styles can be aggressive, putting other road users at risk and younger truckers are more likely to be in a crash than their older colleagues.

But rather than playing the blame game, improving safety for all road users works well to improve heavy vehicle safety. Better road design; tackling driver behaviour and attitudes; getting truckers to rest more often; managing speeds; and using accreditation schemes help too. Research shows that literate truckers are less likely to be in a crash and training improves safety. Safety accreditation schemes help too. They can be a good way to get companies to better maintain trucks and improve the health and fitness of their drivers. Truck drivers sometimes suffer from diabetes or are overweight. If they are depressed, anxious or abusing medicines it’s harder for them to get treatment because they are out on the road much of the time. By making it easier for them to get medical help safety can be improved. They work long shifts, often at night and their work can be boring and exhausting. But when it’s time to rest truck drivers have trouble sleeping. This is a worry because tired, unhealthy drivers react slower. They also struggle to concentrate or manage tasks, making them more of a risk on the road. Getting truckers to slow down makes a big difference to safety. Onboard technology is proving to be increasingly useful in doing this.

BOBBIES ON THE BEAT: The municipality is working on a freight route policing programme, with more police on the street and a dedicated road freight team.

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Policing pays off

INTERNATIONAL experience shows that targeted policing really works and can more than pay for itself in lives saved, injuries prevented and fines collected. Two programmes have been identified to boost enforcement in eThekwini.

The one focuses on identifying motorists who disobey the traffic signals and jump red lights. Problem intersections will be identified and cameras installed to catch offenders.

The other programme involves general enforcement.

Data and research

PEOPLE have all kinds of ideas on how to tackle road safety, but the best way is based on research and this starts with collecting reliable data.

Road safety practitioners need evidence so they can properly diagnose the problem and find the best remedy. Cost must also be balanced against other priorities.

The Safe System Approach involves gathering data and documenting road injuries and the measures taken to prevent crashes and how this helps society save money. This builds political support for road safety efforts. Data for study includes details of crashes, road inventories, survey findings, and enforcement records. But there is no sense in collecting data if no one uses it.

Road crashes happen for complex reasons that are often related. It takes a team effort to tackle the problem, so the findings of research must be widely shared. Keeping the police, health officials, engineers, policy-makers and the public informed helps them to make better decisions. It also lets them see if their plans are working. The municipality has data collection and research programmes in place, but more needs to be done to improve the sharing of data as well as its collection, storage and analysis.

Eliminating hazardous locations

STUDIES of crash and traffic volume data are being used to identify locations where fatal and other serious crashes happen frequently.

Traffic engineering officials will look at hazardous locations, work out what is causing the crashes and see what can be done to prevent these.

Check-ups will be done to see if countermeasures are working.

The International Road Assessment Programme will be used to identify hazardous locations and find ways to reduce crashes at these places.

Inspections are used to rate the safety of roads and award stars, with the safest roads getting five stars.

Traffic engineering measures can be used to fix any unsafe roads that scored below three stars.

Road closures and incident management

MOTORISTS often brake hard at the last moment or change lanes without warning as they approach roadworks.

Speeding at roadworks is common.

The municipality has programmes to manage road closures and incidents.

There are inspectors checking on roadworks to see that the right signage is in place and that regulations are followed.

Conclusion

PROGRESS has been made in reducing road deaths in eThekwini, but for this to continue, partnerships must be forged. Everyone involved needs to know his or her role in the Road Safety Plan.

Road safety efforts can bring people together and make life better for the city’s poor, who are more likely than anyone else to be victims of crashes.

If we do these things right we can make eThekwini a better place to live in, work, play and visit.