Researchers start looking out for pedestrians

Three Gauteng researchers take the first step to evaluate how the local roadside environment affects pedestrian safety.

PeDESTRIANS make up for about 60% of all road users in South Africa, and, barring cyclists perhaps, are the most vulnerable. Statistics show that almost half (45%) of all fatalities on our roads involve pedestrians, which is without doubt unacceptably high.

In 2008 there were 5 272 pedestrians killed in road crashes, while 2 881 drivers and 1 073 passengers were killed. While most pedestrian collisions occur while crossing the road – something that needs to be addressed through infrastructure such as pedestrian bridges or subways, zebra crossings and traffic lights, among others – what occurs next to, or nearby the road, also has an impact on pedestrian safety.

A high number of cars parked along the kerb, for instance, a California study found, increases the chances of children being hit by passing motorists, possibly because oncoming cars are obscured by the parked cars, especially considering a child’s visual height.

While the Department of Transport has developed strategies and guidelines to improve pedestrian and cyclist safety, researchers Patricia Albers, Caradee Wright and Jane Olowch argue they are fragmented, unsustainable and curative rather than preventative.

‘In general, pedestrian safety has been overshadowed by policies that overemphasise the need to adhere to safe driving, with pedestrian safety not being addressed as a priority,’ say Albers, Wright and Olowch in their recently released paper ‘Developing a South African Pedestrian Environment Assessment Tool: Tshwane Case Study.’

The authors, whose paper was published in the South African Journal of Science in October 2010, aimed to develop an audit tool for the assessment of the pedestrian environment, as no such tool exists for South Africa.

The trio, from the University of Pretoria’s Department of Geography, Geo-informatics and Meteorology and the CSIR Environmental Health Research Group, looked at roadside released paper ‘Developing a South African Pedestrian Environment Assessment Tool: Tshwane Case Study.’

The authors' site selection for testing their Pedestrian Environment Assessment Tool: Tshwane Case Study was made by analysing crash data from the Road Traffic Management Corporation. Police stations in Tshwane with the highest number of pedestrian and hit-and-run collisions were identified, with the intention of visiting the five areas with the highest number of collisions to get further information to determine specific site selection.

‘However, three of these police stations were ruled out as being in areas deemed to be isolated or unsafe and not suitable for the researchers to visit,’ Albers, Wright and Olowch say.

Additionally, none of the five sites were visited at night due to safety reasons, but were assessed during morning and afternoon peak traffic hours in June 2009.

More than an inconvenience

Besides affecting the study itself, the high crime rate – combined with the typical scenario where streetlights illuminate roads rather than sidewalks – forces pedestrians to walk onto the road, especially when walking past open spaces or abandoned buildings. This of course puts them at risk of being hit by a passing car.

Other South African safety issues mentioned in the study are pot-holes and pavement hawkers, as well as minibus taxi drop-off points.

On the surface it would appear that such things would do little more than inconvenience pedestrians, much less cause a road fatality. A little thought on the matter, however, puts it in a different light.

Peds make up for about 60% of all road users in South Africa, and, barring cyclists perhaps, are the most vulnerable. Statistics show that almost half of all fatalities on our roads involve pedestrians, which is without doubt unacceptably high. In 2008 there were 5 272 pedestrians killed in road crashes, while 2 881 drivers and 1 073 passengers were killed. While most pedestrian collisions occur while crossing the road – something that needs to be addressed through infrastructure such as pedestrian bridges or subways, zebra crossings and traffic lights, among others – what occurs next to, or nearby the road, also has an impact on pedestrian safety.

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Other South African safety issues mentioned in the study are potholes and pavement hawkers, as well as minibus taxi drop-off points.

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It is quite common in township areas for taxis and other vehicles along a main thoroughfare to mount the sidewalk at points along their commute, in order to evade particularly badly potholed sections of tar. This puts pedestrians using the sidewalk at high risk – especially those not familiar with the area and unaware of such points along the road.

Too many vendors crowding a pavement also causes pedestrians to move onto the road, where a careless, inattentive or distracted driver could mow them down.

Minibus taxis coming to a halt at unmarked, but commonly used, points, often cause other drivers to swerve into the oncoming lane – where a pedestrian is unlikely to expect a vehicle to approach from that side.

Add these to environmental factors such as weather, the presence or absence of trees or vegetation, street lighting, human behaviour, infrastructure or the lack thereof, alcohol abuse and it is small wonder that our pedestrian fatality rates are so high.

An audit tool to assess the local pedestrian environment, to identify potential problems and to provide recommendations is not an abstract academic study but a sorely needed practical necessity if pedestrian fatalities are to be significantly reduced.

The full article Developing a South African Pedestrian Environment Assessment Tool: Tshwane Case Study can be found at http://www.ajaus.co.za.