



Photo: Paul Voorham

Decrease in traffic injuries requires more accurate registration

The number of road fatalities in the Netherlands has been declining steadily for years. The decline of the number of serious road injuries, however, has not kept pace: in 2009 and 2010 there was a standstill. Specific measures must be taken to achieve a similar decrease of the number of serious road injuries. To be able to determine which measures are required, the road crash registration must be in order.

This is one of the conclusions in the recently published SWOV report 'Why do the development of the number of serious road injuries and the development of the number of road fatalities differ?'. Obviously, different policy is required to achieve a decrease of the number of serious road injuries. Knowledge about road crashes with seriously injured is necessary to adapt policy and to take the right measures. To be able to establish which measures these are, SWOV investigated what may have caused the different decreases of fatalities and serious road injuries.

Groups of road users

SWOV studied the development of the number of road fatalities and the number of serious road injuries for groups of road users catego-

rized by mode of transport and by age. This approach showed that the standstill in the decrease of the numbers of fatalities and serious road injuries is most prominent for the following groups of road users:

- pedestrians older than 60;
- cyclists older than 25 in crashes with motor vehicles;
- (light) moped riders in the age group 12-60 years old;
- motorcyclists aged 40 and older;
- car occupants.

Infrastructure

A general explanation for the different developments of the numbers of fatalities and of the numbers of serious road injuries can for some of these groups be found in infrastructural

adaptations. The introduction of Zones 30 and Zones 60, for example, has resulted in lower crash speeds for some of the crashes between road users than was the case earlier. This results in a more rapid decrease of the number of road fatalities than of serious road injuries. Safer layouts of intersections, e.g. the construction of roundabouts, has a similar effect.

Secondary provisions

Other than in infrastructure, explanations may also be found in the secondary safety provisions of vehicles. Such provisions are not intended to prevent crashes, but to limit its severity if a crash does occur. The increasing use of child seats, for example, can be an explanation for the extra difference in development between fatalities and serious road injuries that was found for 0-11 year old car occupants. ABS could play a role in the difference among motorcyclists. Due to an increasing number of motorcycles being equipped with ABS, an increasing share of the falls of motorcyclists occur at lower speeds.

Cyclists

The number of serious road injuries among cyclists in crashes in which no motor vehicle is involved has been increasing since the early 1990s. However, cyclists rarely die in these types of crashes; it is therefore impossible to compare with the development of the number of fatalities. The following explanations may be given for the increase of the number of serious road injuries among this group of cyclists:

- Cycling has increased, particularly by elderly road users.
- An increase in the use of e-bikes and racing cycles has increased the cycling speed.
- Cycle paths are getting busier due to increased bicycle use.
- The quality of cycle paths often leaves to be desired.
- Increased use of devices while cycling
- An increase in cycling under the influence of drugs or alcohol.

More knowledge required

Knowledge of distraction is important for determining the extent of the problem and mechanisms underlying it. Although much is known about the problem of distraction, there still are important knowledge gaps. Thus, there is insufficient data about the extent in which distraction occurs among different types of road

users and about the effect of the various sources of distraction on the crash risk. In particular, little is known about distraction among cyclists and pedestrians. It is conceivable that the various sources of distraction will not require the same types of measures. Future studies should focus on the effectiveness of various kinds of measures to reduce distraction in traffic.

Two SWOV reports on serious road injuries have recently been published:

Why do the development of the number of serious road injuries and the development of the number of road fatalities differ? M. Reurings, H. Stipdonk, F. Minnaard & R. Eenink. R-2012-9. SWOV, Leidschendam.

Serious road injuries in the years 2009 and 2010. M. Reurings & N. Bos. R-2012-7. SWOV, Leidschendam.