

# EXTREME BEHAVIOUR



– mainly a question of driving without a license

**Version 3.0**

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## Background

According to studies conducted by SMC, VTI and NTF (1, 2) the vast majority of motorcyclists are safety conscious. They don't take unnecessary risks and they enjoy riding a motorcycle. To have a valid driving license when riding a motorcycle is a matter of course for motorcyclists.

However, regarding fatalities among drivers of motorcycles we see the same four factors occurring again and again - riding without a license, riding under the influence, aggressive riding, and high speed combined with reckless riding. SMC has chosen to group these factors under the label "extreme behaviour".

The total number of motorcycle accidents are declining but fatal accidents containing one or more of these factors are increasing. It's becoming increasingly clear that the problem of extreme behaviour is mainly about the group lacking a driving license. This group is difficult to reach and influence with traditional road safety measures.

## Driving without a license 2005-2010

Many of the riders who die on a motorcycle has no driver's license, has never undergone rider training and does not have the knowledge needed to ride a motorcycle. Within this group the other three extreme behavior are overrepresented. Between 2005-2010 25 percent of the riders in fatal motorcycle accidents, according to a summary from the Swedish Transport Administration (Table 1).

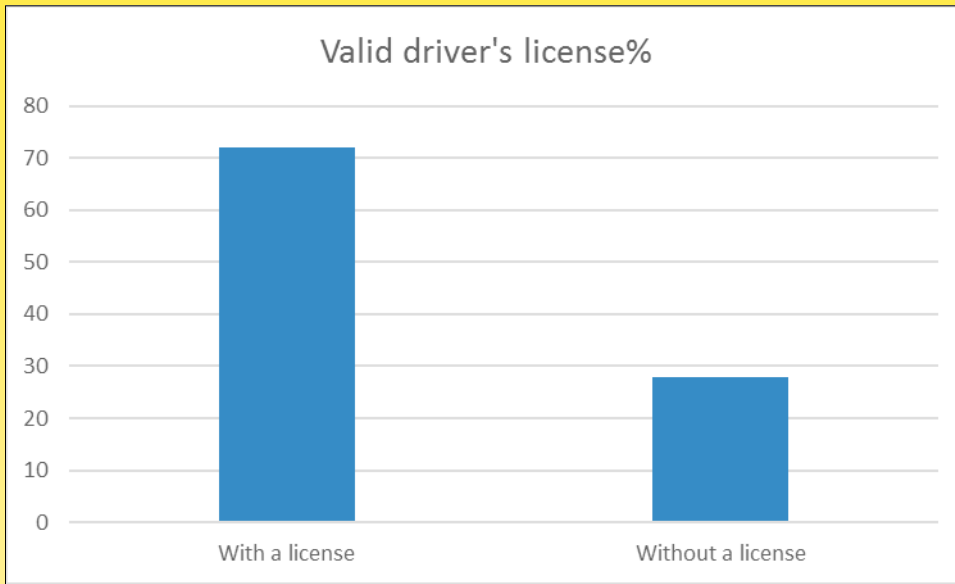
This was unfortunately not the whole truth about the fatal accidents from 2005 to 2010. Many of the riders without a license did not own the motorcycle they were killed on. The bike was often unregistered, and/or not insured and thus not permitted to ride on the road. One fifth of the riders in this group did not have a helmet at the fatal accident which has been required by law since 1975. Finally, a majority, 60 percent, intoxicated and/or under the influence of drugs in the group without a license.

	Without a license	All fatal accidents
Number	65	263
Percentage without license	25%	
Average age	30	39
Alcohol and/or drugs	60%	26%
If alcohol, promille	1,6	1,4
Legal owner of MC	32 %	63%
No helmet	20%	7%
Cross/endure	22%	6%
Unregistered bike	12 %	3%
MC not in use	35%	11%

**Table 1.** Fatal accidents on motorcycles 2005-2010, without license vs all accidents.

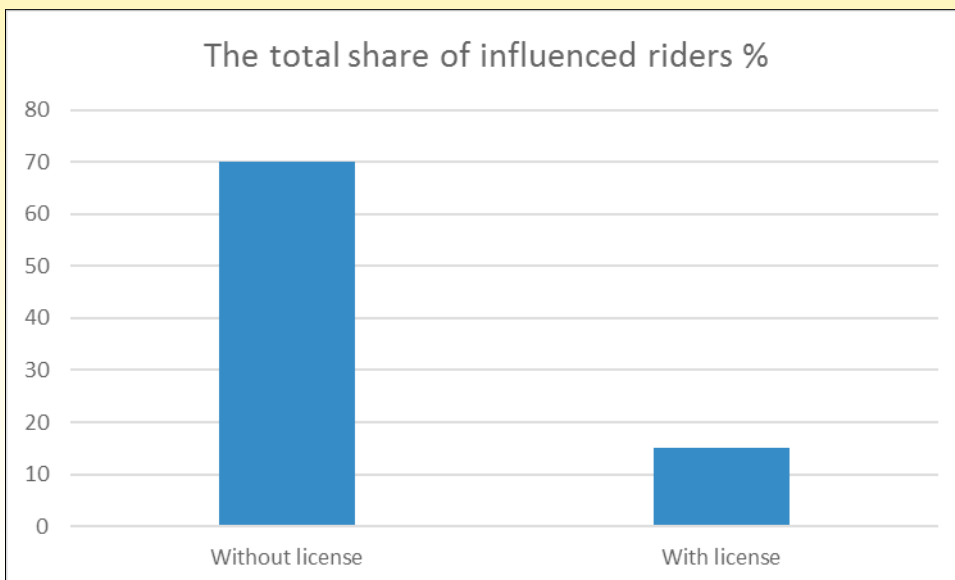
## Fatalities on motorcycles with two wheels 2011-2015, with and without a valid license

SMC has gone through fatal accidents on motorcycles with two wheels 2011-2015 and compared the group that didn't have a valid license to those who had a driver's license (3). The difference with Table 1 is thus that the groups are shown separately in Table 2. 50 riders out of 178 fatalities did not have a valid license, which corresponds to 28 percent. The average age is lower among those without a driver's license, 35 years. This age shows that it is not about youngsters. The group who lacked a valid driver's license at the fatal accident with a motorcycle has increased compared to the period 2005-2010 when they accounted for 25 percent.



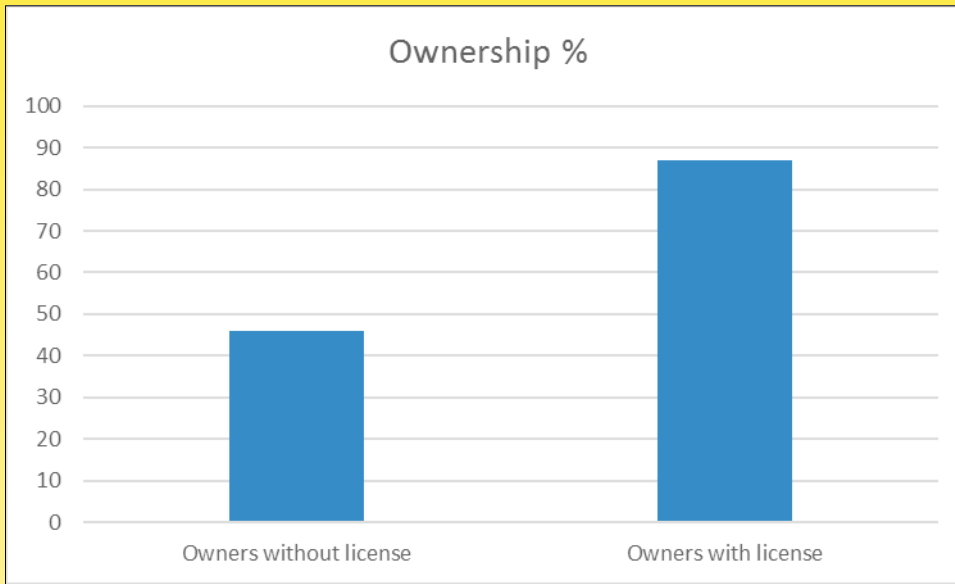
**Figure 1.** Share among fatalities on motorcycles 2011-2015 with/without a license.

If you compare those without license with those who had a license it becomes clear that the license-less group was guilty of a number of traffic offenses during the ride that led to the fatal accident. To begin with, a majority rode under the influence of alcohol and/or drugs. 70 percent without a valid license drove under the influence compared to 15 percent in the group with a license. Riding without a license combined with being influenced of alcohol and/or drugs obviously increases the risk for accidents. The number of people riding under the influence of alcohol and/or drugs among the license-less group have increased compared to the period 2005-2010 when it was 60 percent.



**Figure 2.** Share riding under the influence of alcohol and/or drugs 2011-2015, without/with license.

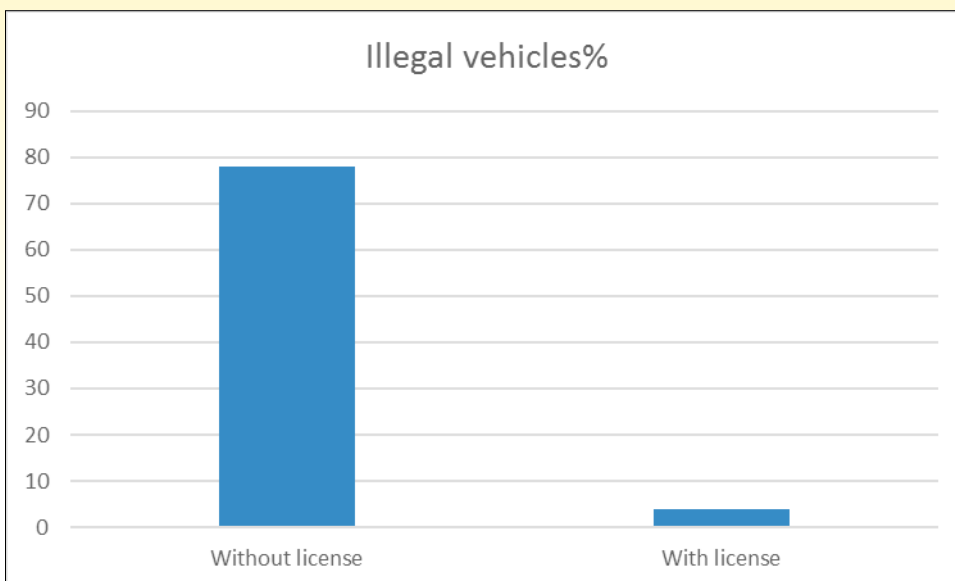
One of the victims with a license drove without a helmet at the fatal accident, for three the usage of helmet couldn't be defined. Among the group without a license, eight out of 50 fatalities were missing helmet. Beside that one was riding without the helmet fastened properly and for six persons the helmet usage was unknown. Riding without a license and not wearing a helmet obviously increases the risk of serious injury or death when an accident occurs.



**Figure 3.** Share of ownership among the fatalities, without/with license.

Less than half, 46 percent, of those who lacked a license owned the motorcycle they drove themselves to death on. That compares with 83 percent among those who had a license. Riding without a license on a motorcycle you're not used to ride also increase the risk of being killed or seriously injured. The proportion of owners among the license-less group has increased significantly compared with the period 2005-2010, when it was 32 percent.

Almost four out of five, 78 percent, of the persons who had no driver's license rode a motorcycle that was decommissioned, deregistered or unregistered and/or uninsured, in other words a motorcycle illegal to use in traffic. This problem is non-existing in the license group where four persons were riding a motorcycle with driving ban, and this was due to a technical inspection which was not completed within the prescribed time. No licensed drivers drove motocross/enduro (not allowed on roads) at the fatal accident compared to five persons among the license-less group. Seven persons in the group without a license were riding a stolen motorcycle at the fatal crash compared to no one in the group with a license.



**Figure 4.** Share of unregistered, decommissioned and uninsured vehicles without/with license.

## Fatalities 2011-2015 – without and with a valid license

	Number without license (%)	Number with license (%)
Number	50 (28 %)	128 (72%)
Average age	35	43,35
Alcohol	15 (30%)	12 (9%)
Per mille, average	1,38	1,08
Drugs	12(24 %)	7 (5%)
Alcohol and drugs	8 (16 %)	0
Total alcohol and/or drugs	35 (70 %)	19 (15 %)
No helmet	14 (28%)	4 (3%)
Owner	23 (46 %)	111 (87%)
Unregistered/decommissioned/ uninsured	27 (65%)	5 (4%)
Cross/enduro	5 (10%)	0
Stolen motorcycle	7 (14%)	0
Single	27 (54 %)	47 (37%)
Collision	21 (42 %)	74 (58%)
Wild animals	2 (4%)	7 (5 %)

**Table 2.** Fatalities 2011-2015, without/with MC license. Source: Swedish Transport Administration in-depth studies 2011-2015.

### Riding without a license among severely injured 2010-2014

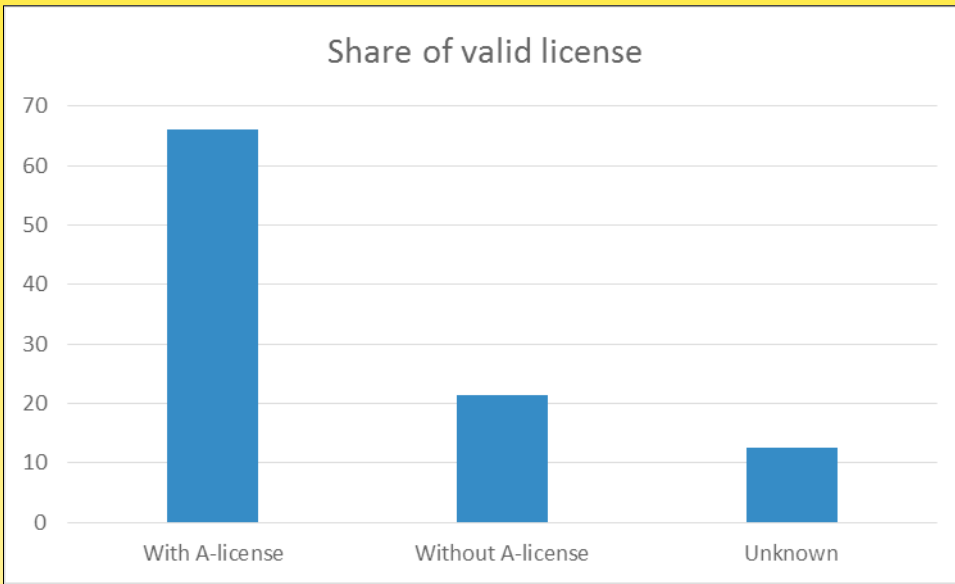
SMC have put together an overall picture of the Swedish Transport Agency statistics on police-reported motorcycle accidents with severely injured motorcycle drivers. The statistics include age, MC model and license status. The statistics clearly show that riding without a license is an important factor not only among the fatalities, but also among motorbike riders who are seriously injured.

According to police-reported accidents in STRADA (6) 1263 people were severely injured on two-wheel motorcycles in 2010-2014 - 118 women (9.34%) and 1145 men (90.65%). The average age was 42.48 years (in the years 2013-2014 was 41 years). Of the 1,263 severely injured 214 did not have a valid license for motorcycles, which corresponds to 17% of all severely injured. In addition to these we are missing license information on 110 people, or 7% - 105 men, 2 women and 3 of unknown gender. There are probably people in this group as well who lack a valid licenses.

### Severely injured in two-wheeled motorcycle accidents 2013-2014

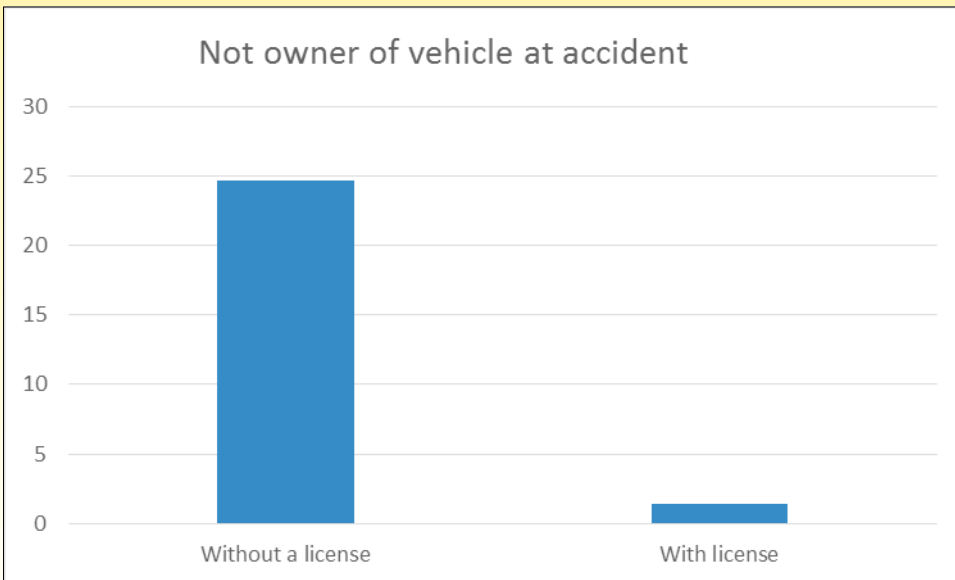
SMC also made a special study of those who were severely injured in the two-wheel motorcycle accidents during 2013-2014 (7). 21.5 percent lacked a valid license! In addition to these license data for nearly 13 percent are missing. Only two thirds of the seriously injured, 66 percent, had a valid motorcycle license.





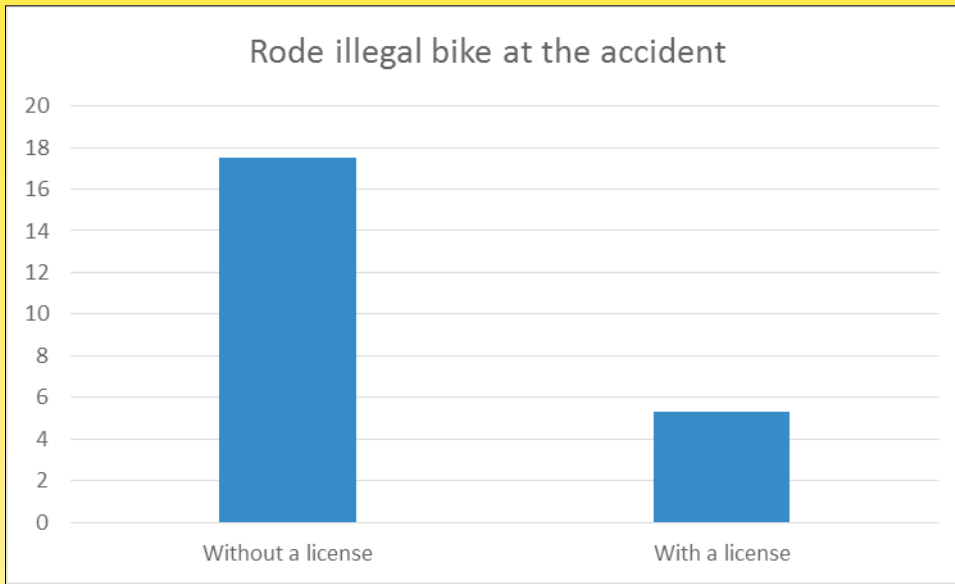
**Figure 5.** Severely injured on motorcycles 2013-2014, without/with license.

For the period 2013-2014 SMC have looked at the details of ownership among the severely injured. The number of license-less severely injured who rides a motorcycle they do not own and/or a motorcycle that has been banned are much higher than for those with a license – like the fatalities just showed us. 25 percent of those who had no valid license did not own the motorcycle they were riding. Among those who had a license the corresponding figure were 1.4 percent.



**Figure 6.** Ownership among severely injured, without/with license.

In the license-less group 17.5% drove a motorcycle with a driving ban (unregistered, decommissioned and/or uninsured vehicle), compared with 5.3% among those who had a valid license.



**Figure 7.** Number of unregistered, decommissioned and uninsured vehicles without/with license.

Every day SMC scans MC related articles in media. All articles concerning extreme behaviour gets published on our web. Hundreds of articles about road accidents during the period 2012-2015 describes some kind of extreme behaviour. Most common are male motorcycle riders among those without a license and under the influence of alcohol and/or drugs.

### Is this a true picture of Swedish motorcyclists?

These accident statistics shows a totally different picture of the Swedish motorcycle riders than the study regarding motorcyclists' attitudes to road safety which was provided by the SMC and the NTF in 2010 (1). In the study everyone had a motorcycle license. Drunk driving and/or under the influence of drugs was clearly not acceptable among the motorcyclists. In fact, motorcyclists in the study reported a much better attitude towards alcohol/drugs than motorists. To pay vehicle taxes, insurance and riding a registered vehicle went without saying, as well as no mock-insured motorcycles. The MOT-inspection of motorcycles show consistently each year that motorcyclists do take care of their motorcycles. There is only one factor where motorcyclists were "worse" than car drivers - following the speed limit. According to the Swedish Transport Administration, approximately half of the non-license holders who died in the two-wheel motorcycle accident got the license revoked, while the other half never taken the motorbike driving license (6).

### Is there a difference between drivers of motorcycles and cars?

SMC has compared license-less drivers among motorcycle and car drivers. We studied the number of people driving under the influence of alcohol and/or drugs between 2010 and 2014.

The share of license-less drivers is higher among those driving a motorcycle. The proportion of those driving under the influence of drugs and/or alcohol are also higher among license-less motorcycle drivers than car drivers. In summary SMC concludes that the presence of alcohol and/or drugs are more common among license-less motorcycle drivers compared to car drivers.

Vehicle	License	No license	Total	% without license
Motorcycle	120	52	172	30
Car	416	33	449	7
Total	536	85	621	14

**Table 3.** Fatalities, per vehicle with and without license, 2010-2014.

The table above shows the proportion of deaths that do not have a driving license is significantly higher among those who ride a motorcycle than those driving a car. A full 30 percent of those killed motorcycle riders were missing valid license, compared with 7 percent among car drivers.

Vehicle	Alcohol	Sober	Total	% affected by alcohol
Motorcycle	38	123	161	24
Car	85	334	419	20
Total	123	457	580	21

**Table 4.** Fatalities affected by alcohol, per vehicle, 2010-2014.

The proportion of deaths that are alcohol affected is slightly higher among those who drove motorcycles compared to car drivers, 24 and 20 percent respectively.

Vehicle	License	No license	Total	% without license
Motorcycle	15	22	38	58
Car	62	21	85	25
Total	77	43	123	35

**Table 5.** Fatalities affected by alcohol, per vehicle with and without license, 2010-2014.

Over half, 58 percent, of those who perished on motorcycles 2010-2014 driving under the influence of alcohol lacked a license. The corresponding figure for cars was 25 percent.

Vehicle	Drugs	No drugs	Total	% affected by drugs
Motorcycle	29	137	166	17
Car	31	394	425	7
Total	60	531	591	10

**Table 6.** Fatalities affected by drugs, per vehicle, 2010-2014.

The proportion of drivers killed 2010-2014 under the influence of drugs is higher among motorcyclists, compared with car drivers, 17 and 7 percent.

Vehicle	License	No license	Total	% without license
Motorcycle	8	19	27	70
Car	15	15	30	50
Total	22	34	57	60

**Table 7.** Fatalities affected by drugs, per vehicle with and without license, 2010-2014.

The proportion who lack a valid license is high among both motorbike and car drivers who were under the influence of drugs in connection with the fatal accident. The proportion is significantly higher among motorcycle riders compared to motorists, 70 and 50 percent.

### Is there anything the police can do?

It is above all the police who is able to intervene against drivers without a license. A Norwegian analysis of motorcycle fatalities in 2005-2009 shows that 80% of this group can be found in the criminal records for economic crime, drugs, violence, vandalism, traffic offenses and other crimes (3). Some measures suggested by the analysis group were that the police should have mandate to take action against the group - controls and sanctions aimed specifically against this group and also controls and monitoring of at-risk youths. This was highlighted in the Norwegian "Nasjonal tiltaksplan for trafikksikkerhet on veg 2014-2017" (9). The Norwegian Action Plan



also highlights the cooperation on the issue between stakeholders as the Public Roads Administration, NMCU, motorcycle importers, Safe Traffic, the government and the Norwegian police.

Just as in Norway, Sweden should be able to compare fatal accidents with the police criminal records. Articles that SMC gathered on their website shows that people are only rarely prosecuted and convicted. Just as in Norway, the Swedish police must be given the mandate to prioritize the license-less group that obviously put themselves outside of the law, not just in terms of riding without a license. SMC would be happy to cooperate with police regarding the issue of license-less drivers.

Control of licenses on a large scale should be prioritized, as the group driving without a license are not only large among those killed but also among the severely injured. The statistics above show there are many license-less even among those killed in cars.

### **What can the rest of us do?**

It must become a priority in Sweden that all drivers and riders of motor vehicles have a valid license in the work to halve the number of fatalities and reduce serious injuries by 25% by 2020. SMC strongly believes that having a driving license should be a top priority and call upon all involved to include this as a target immediately. If everyone who rode a motorcycle 2011-2015 had had a driving license, the interim target for fatalities and serious injuries would have been achieved to a great extent already.

SMC also calls for annual statistics from the Swedish Transport Agency and the Swedish Transport Administration, where having a driver's license should be shown for drivers killed or seriously injured, as well as ownership structure, sobriety and driving bans. There are existing statistics that can be used to measure and monitor the proportion of drivers and riders with and without driving licenses annually.

It is also extremely important the problem is made visible to sensitize the various stakeholders - insurance companies, associations, driving schools, authorities, courts, politicians, family and friends. If knowledge is spread in the society, it's possible for anyone to inform and take action.

It is important to change the attitude towards road safety. The fact that so many drives and rides vehicles without a license and are killed or injured suggest that certain groups have accepted illegal driving. SMC is in favour of a road safety education that begins at school age, long before a driver's license is an issue. Basic road user education from school should naturally lead to an active choice: get a license, or, not drive a motorized vehicle at all. Road safety is an important matter for the whole society, including pedestrians and cyclists. It is important regardless if a person decides to get a license or not.

A visible measure adopted to reduced accidents on motorcycles are stricter requirements for driving licenses throughout the EU. The age limit has been raised, the requirements for test vehicles have been tightened and more riding test has been introduced. In parallel, Sweden has introduced mandatory risk training for motorcycles and raised the fees for riding tests on a motorcycle. Sweden has Europe's highest test costs. Sweden also has the highest known percentage of license-less riders among fatalities on motorcycles.

To SMC it is obvious that we need a change of the motorcycle license system. The world's leading road safety experts have put education as the primary measure for increasing safety among motorcyclists. On this basis we must work to give as many people as possible access to training, see to that training is cost effective and therefore available for most people, and – finally – that experience and not the test itself is seen as the important part of driver training.

## Sources

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3. In-depth studies of fatal motorcycle accidents 2011-2015, The Swedish Transport Administration
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