OLA - (Objective data, List of solutions, Addressed action plans)

"A systematic collaboration for safer road traffic"

In-depth studies of fatal accident – Why?

Every fatal accident is a catastrophe
In-depth studies is practice since 1997
Aims:
- Objective analyse of injuries and cause of death
- To increase awareness and commitment
- To improve safety standards
- To prevent similar accidents to happening again
- Not to blame the victim
In-depth studies of fatal accident – results!

A written file including:
- SRA’s investigators report (vehicles and accident sites)
- Police report (technical report and interview protocol)
- Information from registers (driving licence, vehicles)
- Autopsy/coroners report (injuries)
- Rescue operation

In-depth studies of fatal accident – results!

- Correction in road environment
- Presentation to the management level in the SRA
- Available files for further analysis (OLA)
- Summery reports:
**OLA - Objective data, List of solutions, Addressed action plans**

A systematic collaboration for safer road traffic

**Why?**
- Improve traffic safety to prevent future serious crashes
- Collaborate with relevant system designers
- Develop solutions and addressed action plans

**Aim**
- All participants contribute with specified action-plans which lead to increased traffic safety

National and regional OLA-projects are performed
**OLA**

**How?**

Objective data — Meeting nr 1

List of solutions — Meeting nr 2

Addressed action plans — Meeting nr 3

Publicly announce

Follow up results

---

**OLA**

**O - Objective data**

- Analysis of in-depth studies
- Literature reviews
- Official statistics
- Other data
OLA

L - List of solutions
Identify effective solutions (short and long term)
   1. What can my organisation do?
   2. What is needed from other organisations?
   3. Is co-operation between organisations needed?

OLA

A - Addressed action plans
The stakeholders addressed action plans should be:
   - Relevant
     - Clear enough (who? what? when? how much?)
   - Publicly announce
   - Reported to the Road Traffic Inspectorate
   - Follow up results
Performed national OLAs 2002-2006
(121 action plans from 73 different organisations)

On-going: Senior-OLA
Planned: Sports-OLA

National OLA - time plan
MC-OLA
- For safer motorcycle traffic -

OLA
Objective data
List of solutions/actions
Addressed action plans

"A systematic working approach involving collaboration between players and targeted action for safer road traffic."

Participants

- National Police Board
- Swedish Road Administration
- National Society for Road Safety
- The Swedish Insurance Federation
- Swedish Vehicle Inspection Company
- The Swedish Motorcyclists Association
- Allt om Mc (motorcycle magazine)
- Sporthoj.com (motorcycle website)
- McRF (national society for the motorcycle industry)
- Jofama (protective clothing manufacturer)
- Honda
- Harley Davidson Club Sweden (insurance federation)
- SMR (motorcycle dealers)
- STR, TR (driving schools)
Objective data

- Fatal motorcycle accidents (SRA, 2005)
- Motorcycle safety – A study of the literature (TØI, 2003)
- In-depth investigation of motorcycle accidents (Maids, 2004)
- Report – Serious accidents involving MCs and mopeds (Swedish Road Traffic Inspectorate, 2005)
- Injury statistics (Swedish Insurance Federation, 2005)
- The accident risk of motorcyclists (TRL, 2004)

Fatal motorcycle accidents

Analysis of the SRA’s in-depth study report, 2000-2003, 160 motorcycle accidents resulting in the death of 168 people.
**Motorcycles in traffic, July 1st 1990-2005**

**Motorcycle fatalities 1998 - 2005**

*Period included in the in-depth study report*
168 people were killed in 160 MC accidents
2000-2003

Hit by an MC and killed, 10
MC passengers killed, 11

147 MC drivers killed

Hit and killed
Pedestrians 5
Car drivers 3
Cyclists 2
Total 10

MODEL AND CLASS

<table>
<thead>
<tr>
<th>Standard</th>
<th>Custom</th>
<th>Off-road</th>
<th>Touring</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aprilia</td>
<td>AP 125</td>
<td>1 HD XLH</td>
<td>1 BMW F 650</td>
</tr>
<tr>
<td>Ducati</td>
<td>monster 600</td>
<td>HD PXSTB</td>
<td>2 Honda SLR 650</td>
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<tr>
<td>Honda</td>
<td>CB 400</td>
<td>2 HD FLST</td>
<td>1 Honda XL 1000</td>
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<tr>
<td>Honda</td>
<td>CB 550</td>
<td>1 HD XL/2</td>
<td>1 Husaberg FE 350</td>
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<td>1 Husaberg FS 650</td>
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<td>Z 1300</td>
<td>1 Suzuki VS 800</td>
<td>1 Kawasaki VL 1500</td>
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<tr>
<td>Suzuki</td>
<td>GSX 400</td>
<td>2 Suzuki VS 800</td>
<td>1 KTM 125 SX</td>
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<tr>
<td>Suzuki</td>
<td>GSX 600</td>
<td>1 Yamaha XVS 650</td>
<td>1 KTM EXC 250</td>
</tr>
<tr>
<td>Suzuki</td>
<td>GSX 1100</td>
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<td>2 KTM 660 SMC</td>
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<td>VX 800</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Yamaha</td>
<td>XJ 600</td>
<td>1</td>
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<td>1</td>
<td></td>
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<tr>
<td>Yamaha</td>
<td>FJ 1100</td>
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<td></td>
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<td>Yamaha</td>
<td>FZ 750</td>
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<tr>
<td>Yamaha</td>
<td>VMX 1200</td>
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<td></td>
</tr>
<tr>
<td>Yamaha</td>
<td>XS 1100</td>
<td>1</td>
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</table>

Three MC classes are missing in the list.
## MODEL AND CLASS

<table>
<thead>
<tr>
<th>Sporttouring No.</th>
<th>Supersport No.</th>
<th>Scooter No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aprilia RST 1000</td>
<td>Ducati 916 SPS</td>
<td>Kymco Movie</td>
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<tr>
<td>Honda CBR 1000</td>
<td>Ducati 996 biposto</td>
<td>Yamaha XC 125</td>
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<tr>
<td>Honda CB 1100 F</td>
<td>Ducati H6</td>
<td>Yamaha YP 125</td>
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<td>Suzuki GSX-R 1000</td>
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<td>Suzuki GSX-R 1100</td>
<td></td>
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<tr>
<td>Honda CBR 1100</td>
<td>Suzuki TL 1000</td>
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<tr>
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<td>Honda VFR 750</td>
<td>Triumph daytona T595SP</td>
<td></td>
</tr>
<tr>
<td>Honda VTR 1000</td>
<td>Triumph speed triple</td>
<td></td>
</tr>
<tr>
<td>Kawasaki ninja 750</td>
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</tr>
<tr>
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<td>Yamaha FZR 600</td>
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<td>Yamaha FZR 1000</td>
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</tr>
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<td>Yamaha R101</td>
<td></td>
</tr>
<tr>
<td>Kawasaki ZX 1000</td>
<td>Yamaha R1041</td>
<td></td>
</tr>
<tr>
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<td>Yamaha YZF 1000</td>
<td></td>
</tr>
<tr>
<td>Kawasaki ZX 1200</td>
<td>Yamaha YZF R1</td>
<td></td>
</tr>
<tr>
<td>Kawasaki ZX 1200</td>
<td>Yamaha YZF R6</td>
<td></td>
</tr>
</tbody>
</table>

## DRIVERS and PASSENGERS by GENDER

Number of fatalities, 158 MC riders

Almost all those killed on a motorcycle are men.
There are more motorcycle fatalities in the period Aug-Sept than April-May.

Almost half of all MC drivers were killed in single accidents.
**Intersection accidents**

40 MC accidents

- Left-turn: 40%
- Crossing paths: 40%
- 20%

In 6 of 10 intersection accidents, the motorcyclist was driving more than 30 km/h above the posted speed limit.

**Head-on collisions**

18 MC accidents

- 10%
- 60%
- 30%

In 9 of 10 head-on collisions, the MC had driven over onto the opposite traffic lane.
Overtaking accidents
12 MC accidents

80%
20%

In 8 of 10 overtaking accidents, the MC was the overtaking vehicle.

CAUSE OF DEATH
Percentage of fatal injuries

Almost half of all fatal injuries were skull injuries.
HELMET USE
Percentage of fatalities, 157 MC riders

Almost every fifth motorcyclist killed had either lost his/her helmet or was not wearing one

With helmet 122
No helmet 11
- of whom 1 would have survived with a helmet
Lost their helmet 12
Use uncertain 12
Total 157

ALCOHOL and DRUGS
Percentage of fatalities, 146 MC drivers

Every fifth motorcyclist killed had been driving under the influence of alcohol or other drugs

In 7 of 146 cases, traces of drugs other than alcohol were found in the MC driver

<table>
<thead>
<tr>
<th>Type of Fatality</th>
<th>Number Killed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alcohol</td>
<td>25</td>
</tr>
<tr>
<td>Other drugs</td>
<td>5</td>
</tr>
<tr>
<td>Alcohol and other drugs</td>
<td>2</td>
</tr>
<tr>
<td>Neither alcohol or drugs</td>
<td>112</td>
</tr>
<tr>
<td>Unknown</td>
<td>2</td>
</tr>
<tr>
<td>Total</td>
<td>146</td>
</tr>
</tbody>
</table>
The 20-29 age category accounts for most of the fatalities

Every fifth fatality was someone who had been "given" * a Category A driving licence

Number killed
- Taken: 89
- Given: 29
- No "A" licence: 25
- Unknown: 3
- Total: 146

* Up until 1975 there was no separate test for a Category A licence as a Category B driving licence entitled the holder to drive a motorcycle
Amongst the fatalities, the number "given" a Category A licence decreased during the period, while the number of those who took it increased.

The percentage of those who were "given" a Category A driving licence are clearly underrepresented in the accident statistics.
The accident statistics show a clear underrepresentation in the 50-59 age category.

More than half of those killed were driving a Supersport.
**MC CLASS and DRIVING LICENCE ACQUISITION**

Percentage of fatalities, 118 MC drivers

- 7 of 10 of those who had taken their licence were driving a Supersport

**ESTIMATED SPEED**

Percentage of fatalities, 146 MC drivers

- 4 of 10 were considered to have been driving much above the posted speed limit

Number killed:
- Posted: 52
- Above: 7
- Much above: 60
- Unknown: 27
- Total: 146

*Posted = max 10 km/h above the posted speed limit*
*Above = 10-30 km/h above the posted speed limit*
*Much above = more than 30 km/h above the posted speed limit*
Almost 9 of 10 who drove much above the posted speed limit were driving a Supersport.

LENGTH OF OWNERSHIP of the MC involved

Half of those who owned the MC involved had done so for less than a year at the time of the accident.
All those who were killed during their first year of possession of a Category A licence were under the age of 29, and 15 of 16 were driving a Supersport.

Half of the fatalities were on roads with a speed limit of 70 km/h.
ROAD DEFICIENCIES

146 MC driver fatalities

<table>
<thead>
<tr>
<th>Number</th>
<th>Per cent</th>
</tr>
</thead>
<tbody>
<tr>
<td>No deficiencies</td>
<td>136</td>
</tr>
<tr>
<td>Ruts</td>
<td>5</td>
</tr>
<tr>
<td>Pothole</td>
<td>2</td>
</tr>
<tr>
<td>Rounded gravel</td>
<td>1</td>
</tr>
<tr>
<td>Other</td>
<td>1</td>
</tr>
<tr>
<td>Unknown</td>
<td>1</td>
</tr>
<tr>
<td>Total</td>
<td>146</td>
</tr>
</tbody>
</table>

In 7% of the fatal accidents, the roadway itself had deficiencies that were considered to be a crucial factor.

CRASHED OBJECT

Percentage of fatalities, 64 single accidents

<table>
<thead>
<tr>
<th>Number killed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tree</td>
</tr>
<tr>
<td>Boulder</td>
</tr>
<tr>
<td>Rock</td>
</tr>
<tr>
<td>Guard rail</td>
</tr>
<tr>
<td>Pole/Post</td>
</tr>
<tr>
<td>Ditch</td>
</tr>
<tr>
<td>Embank.</td>
</tr>
<tr>
<td>Culvert</td>
</tr>
<tr>
<td>Gully</td>
</tr>
<tr>
<td>Foundation</td>
</tr>
<tr>
<td>Island</td>
</tr>
<tr>
<td>Kerb</td>
</tr>
<tr>
<td>Building</td>
</tr>
<tr>
<td>Fence</td>
</tr>
<tr>
<td>Wall</td>
</tr>
<tr>
<td>Roll-over</td>
</tr>
<tr>
<td>Med. barrier</td>
</tr>
<tr>
<td>Total</td>
</tr>
</tbody>
</table>

During the period, no one was killed through crashing into a median barrier.
The accident risk of motorcyclists (TRL, 2004)

- Young drivers has a higher accident risk than older drivers with the same driving experience.
- Novice drivers has a higher accident risk than more experienced drivers in the same age.
- Motorcycle training should not focus on skills alone, but needs to improve insight into risk and self-limitations.
Motorcykelsäkerhet – litteraturstudie & metaanalys (TÖl, 2003)

Utbildning – effekt på olyckor

Procent ändring i antal olyckor

-20  0  10  20  30  40  50

Obligatorisk inlärning  Körkortsprov för moped/MC förare  Frivilligt vald inlämningsfråga

0  10  20  30  40  50

6  13  18  44

Procent ändring i antal olyckor (olyckor/km)