

**Analysis of suspected impaired driving cases (DUI & DRE) received at the Washington State Toxicology Laboratory (statewide data from blood results).**

**Table 1: Percentage of total driving cases confirming positive for THC (delta-9-THC)**

| Year        | Total # of impaired driving cases received for testing | Percentage of total cases testing positive for THC |
|-------------|--|--|
| 2009        | 4,809  | 18.2 %   |
| 2010        | 5,012  | 19.4 %   |
| 2011        | 5,132  | 20.2 %   |
| 2012        | 5,298  | 18.6 %   |
| <b>2013</b> | <b>5,468</b>   | <b>24.9 %</b>                                      |

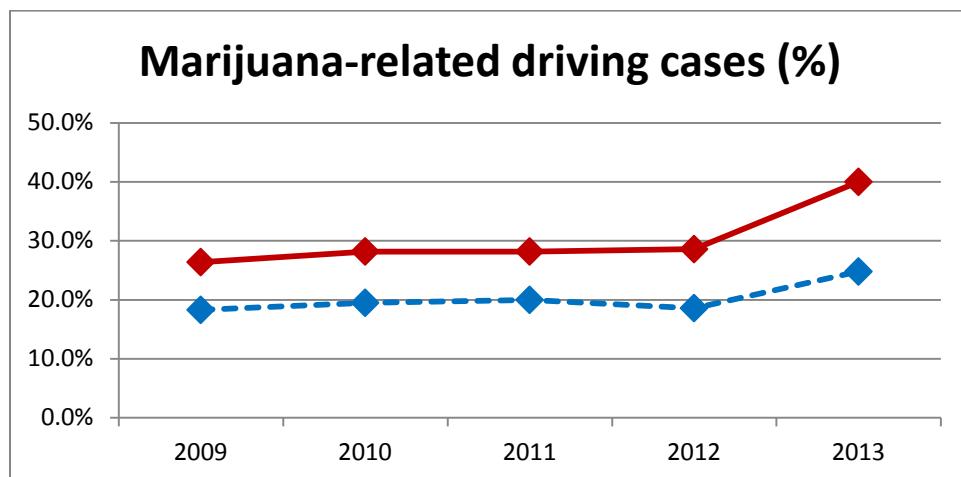
**Table 2: Percentage of total driving cases confirming positive for carboxy-THC (metabolite of THC, indicates marijuana use)**

| Year        | Total # of impaired driving cases received for testing | Percentage of total cases testing positive for carboxy-THC |
|-------------|--|--|
| 2009        | 4,809  | 26.3 %   |
| 2010        | 5,012  | 28.2 %   |
| 2011        | 5,132  | 28.4 %   |
| 2012        | 5,298  | 28.6 %   |
| <b>2013</b> | <b>5,468</b>   | <b>40.0 %</b>  |

**Notes on Tables 1 and 2:**

- The cases in Table 1 are a subset of Table 2. For example, in 2013 there were 2,187 cases (40%) that confirmed positive for carboxy-THC ... of which 1,362 cases (24.9%) also confirmed positive for THC
- In previous years, the reportable level for THC was 1 ng/mL and higher. In 2013, THC was only reported at concentrations of 2 ng/mL and higher
- Although there have been internal procedural changes with respect to drug testing, the observed increase is still apparent and similar after the data is normalized (i.e. after accounting for changes)
- Typically, one quarter of those cases confirming positive for THC are aged under 21 years
- Marijuana is the most frequently detected drug in those aged under 21 years (this includes alcohol)

Graph 1: Data from Tables 1 and 2 shown in graphical form



Solid (red) line – Percentage of impaired driving cases positive for carboxy-THC  
Dashed (blue) line – Percentage of impaired driving cases positive for delta-9-THC

Table 3: Number of THC positive driving cases at or above the per se 5 ng/mL

| Year        | # of impaired driving cases positive for delta9-THC | # of these cases where THC is <u>BELOW</u> 5 ng/mL | # (%) of these cases where THC is <u>5 ng/mL or higher</u> |
|-------------|---|--|--|
| 2011        | 1,036   | 530  | 506 (49%)  |
| 2012        | 988   | 378  | 610 (62%)  |
| <b>2013</b> | <b>1,362</b>  | <b>642</b>   | <b>720 (53%)</b>   |

Table 4: Summary of THC blood concentrations from driving cases

| Year        | # cases positive for delta9-THC | THC concentration Range | Average THC concentration | Median THC concentration |
|-------------|---------------------------------|-------------------------|---------------------------|--------------------------|
| 2011        | 1,036                           | 1 - 58 ng/mL            | 6.4 ng/mL                 | 4.8 ng/mL                |
| 2012        | 988                             | 1 - 90 ng/mL            | 8.0 ng/mL                 | 6.2 ng/mL                |
| <b>2013</b> | <b>1,362</b>                    | <b>2 - 77 ng/mL</b>     | <b>7.2 ng/mL</b>          | <b>5.2 ng/mL</b>         |