

Analysis of suspected impaired driving cases (DUI & DRE) received at the Washington State Toxicology Laboratory (statewide data from blood results): PRELIMINARY DATA shown for 2017.

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 %
2013	5,468	24.9 %
2014	6,270	28.0 %
2015	7,044	32.8 %
2016	8,478	33.6 %
2017 (Jan-Mar)	2,208	33.8 %

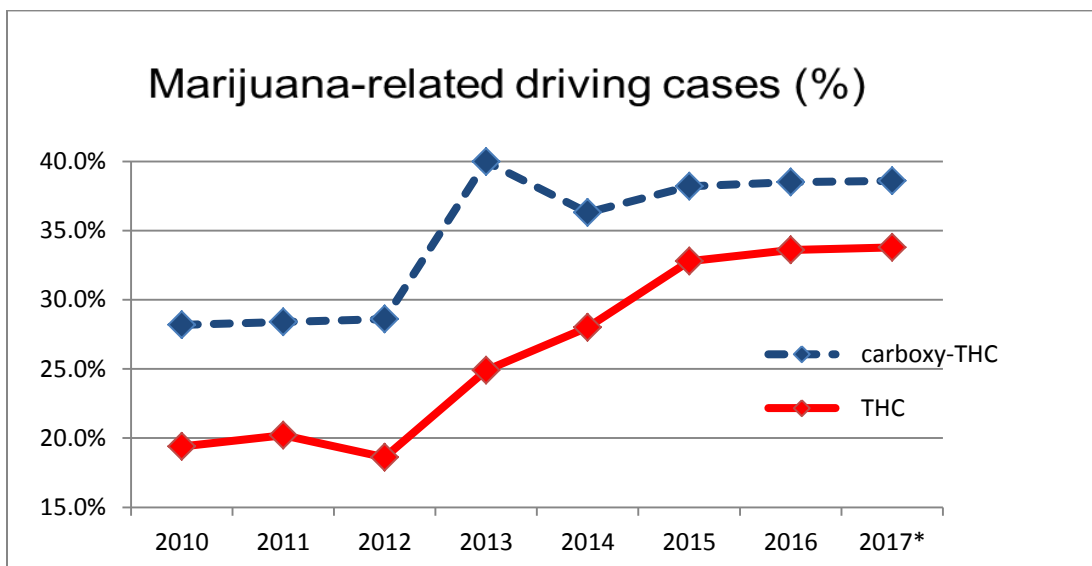
Table 2: Percentage of total driving cases confirming positive for carboxy-THC (metabolite of THC, indicates marijuana use)

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 %
2013	5,468	40.0 %
2014	6,270	36.3 %
2015	7,044	38.2 %
2016	8,478	38.5 %
2017 (Jan-Mar)	2,208	38.6 %

Notes on Tables 1 and 2:

- The cases in Table 1 are a subset of Table 2. For example, in 2009 there were 1,267 cases (26.3%) that confirmed positive for carboxy-THC, of which 877 cases (18.2%) also confirmed positive for THC
- Typically, one quarter of those cases confirming positive for THC are aged under 21 years
- Marijuana is the most frequently detected drug (including alcohol) in those aged under 21 years

Graph 1: Data from Tables 1 and 2 shown in graphical form (* Jan-Mar 2017)



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

Dashed (blue) line – Percentage of suspected impaired driving cases positive for carboxy-THC

Table 3: Summary of THC (delta-9-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
2013	1,362	2 - 77 ng/mL	7.2 ng/mL	5.2 ng/mL
2014	1,759	1 - 100 ng/mL	6.1 ng/mL	3.9 ng/mL
2015	2,311	1 - 69 ng/mL	5.7 ng/mL	3.8 ng/mL
2016	2,848	1 - 71 ng/mL	5.7 ng/mL	3.7 ng/mL
2017 (Jan-Mar)	747	1 - 80 ng/mL	6.0 ng/mL	4.2 ng/mL

Table 4: Number of THC (delta-9-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%)
2013	1,362	642	720 (53%)
2014	1,759	1,056	703 (40%)
2015	2,311	1,389	922 (40%)
2016	2,848	1,752	1,096 (38%)
2017 (Jan-Mar)	747	423	324 (43%)