

Quest Diagnostics Drug Testing Index™

Full year 2021 tables



**Table 1. Annual Positivity Rates – Urine Drug Tests
(For Combined U.S. Workforce)**

(Nearly 9 million tests from January to December 2021)

Year	Drug Positivity Rate
1988	13.6%
1989	12.7%
1990	11.0%
1991	8.8%
1992	8.8%
1993	8.4%
1994	7.5%
1995	6.7%
1996	5.8%
1997	5.0%
1998	4.8%
1999	4.6%
2000	4.7%
2001	4.6%
2002	4.4%
2003	4.5%
2004	4.4%
2005	4.0%
2006	3.8%
2007	3.8%
2008	3.6%
2009	3.6%
2010	3.5%
2011	3.5%
2012	3.5%
2013	3.7%
2014	3.9%
2015	4.0%
2016	4.2%
2017	4.2%
2018	4.4%
2019	4.5%
2020	4.4%
2021	4.6%

Table 2. Positivity Rates by Testing Category – Urine Drug Tests

Testing Category	2017	2018	2019	2020	2021
Federally Mandated, Safety-Sensitive Workforce	2.1%	2.7%	2.4%	2.2%	2.2%
General U.S. Workforce	5.0%	5.1%	5.3%	5.5%	5.6%
Combined U.S. Workforce	4.2%	4.4%	4.5%	4.4%	4.6%

Table 3. Positivity Rates by Testing Reason – Urine Drug Tests (For Federally Mandated, Safety-Sensitive Workforce)

(Nearly 2.7 million tests from January to December 2021)

Testing Reason	2017	2018	2019	2020	2021
Follow-Up	3.9%	5.3%	5.1%	4.6%	4.3%
For Cause	13.1%	13.1%	13.0%	12.7%	13.8%
Post-Accident	3.1%	4.7%	4.5%	4.3%	4.4%
Pre-Employment	2.1%	2.6%	2.4%	2.1%	2.3%
Random	1.8%	2.4%	2.2%	2.0%	1.9%
Return to Duty	3.4%	5.5%	5.0%	4.5%	4.7%

Table 4. Positivity Rates by Testing Reason – Urine Drug Tests (For General U.S. Workforce)

(More than 6 million tests from January to December 2021)

Testing Reason	2017	2018	2019	2020	2021
Follow-Up	7.8%	8.4%	8.3%	7.1%	7.1%
For Cause	33.0%	33.7%	35.7%	34.7%	34.9%
Post-Accident	7.7%	8.4%	9.1%	9.5%	9.7%
Pre-Employment	4.6%	4.7%	4.9%	5.2%	5.4%
Random	5.6%	5.7%	5.6%	5.8%	5.8%
Return to Duty	6.4%	6.4%	6.8%	6.2%	6.3%

**Table 5. Positivity Rates by Drug Category – Urine Drug Tests
(For Federally Mandated, Safety-Sensitive Workforce, as a percentage of all such tests)**

(Nearly 2.7 million tests from January to December 2021)

Drug Category	2017	2018	2019	2020	2021
6-AM	0.019%	0.013%	0.011%	0.008%	0.005%
Amphetamines (Amphetamine/Methamphetamine)	0.68%	0.68%	0.68%	0.64%	0.69%
Cocaine	0.31%	0.28%	0.25%	0.20%	0.21%
Marijuana	0.84%	0.88%	0.88%	0.79%	0.86%
MDMA (MDMA/MDA)	0.005%	0.003%	0.003%	0.002%	0.002%
Opiates (Codeine/Morphine)	0.19%	0.15%	0.12%	0.10%	0.08%
Opiates (Hydrocodone/Hydromorphone)	0.35% ¹	0.45%	0.35%	0.30%	0.27%
Oxycodones (Oxycodone/Oxymorphone)	0.25% ¹	0.34%	0.26%	0.21%	0.20%
PCP	0.03%	0.013%	0.011%	0.011%	0.010%

¹2017 Federal employee testing October through December

**Table 6. Positivity Rates by Drug Category – Urine Drug Tests
(For General U.S. Workforce, as a percentage of all such tests)**

(More than 6 million tests from January to December 2021)

Drug Category	2017	2018	2019	2020	2021
6-AM	0.03%	0.03%	0.02%	0.018%	0.013%
Amphetamines (Amphetamine/Methamphetamine)	1.2%	1.2%	1.3%	1.3%	1.3%
Barbiturates	0.25%	0.22%	0.20%	0.20%	0.18%
Benzodiazepines	0.61%	0.52%	0.43%	0.39%	0.36%
Cocaine	0.30%	0.28%	0.27%	0.22%	0.21%
Marijuana	2.6%	2.8%	3.1%	3.6%	3.9%
MDMA (MDMA/MDA)	0.005%	0.006%	0.008%	0.010%	0.005%
Methadone	0.18%	0.18%	0.16%	0.14%	0.13%
Opiates	0.39%	0.31%	0.25%	0.21%	0.17%
Opiates (Hydrocodone/Hydromorphone)	0.51%	0.50%	0.37%	0.33%	0.32%
Oxycodones (Oxycodone/Oxymorphone)	0.61%	0.43%	0.34%	0.29%	0.29%
PCP	0.013%	0.011%	0.011%	0.009%	0.008%
Propoxyphene	0.001%	0.001%	0.000%	0.001%	0.000%

**Table 7. Positivity Rates by Drug Category – Urine Drug Tests
(For Combined U.S. Workforce, as a percentage of all such tests)**

(Nearly 9 million tests from January to December 2021)

Drug Category	2017	2018	2019	2020	2021
6-AM	0.02%	0.019%	0.015%	0.011%	0.008%
Amphetamines (Amphetamine/Methamphetamine)	1.1%	1.1%	1.1%	1.1%	1.1%
Barbiturates	0.25%	0.22%	0.20%	0.20%	0.18%
Benzodiazepines	0.61%	0.52%	0.43%	0.39%	0.36%
Cocaine	0.30%	0.28%	0.26%	0.21%	0.21%
Marijuana	2.1%	2.3%	2.5%	2.7%	2.9%
MDMA (MDMA/MDA)	0.005%	0.005%	0.005%	0.006%	0.004%
Methadone	0.18%	0.18%	0.16%	0.14%	0.13%
Opiates	0.34%	0.27%	0.22%	0.17%	0.15%
Opiates (Hydrocodone/Hydromorphone)	0.50%	0.46%	0.35%	0.31%	0.28%
Oxycodones (Oxycodone/Oxymorphone)	0.60%	0.38%	0.30%	0.24%	0.24%
PCP	0.016%	0.012%	0.011%	0.010%	0.008%
Propoxyphene	0.001%	0.001%	0.000%	0.001%	0.000%

**Table 8. Non-Negative Rates by Specimen Validity Test (SVT)² Category – Urine Drug Tests
(For Federally Mandated, Safety-Sensitive Workforce, as a percentage of all such tests)**

(Nearly 2.7 million tests from January to December 2021)

SVT Category	2017	2018	2019	2020	2021
Acid-Base	0.02%	0.013%	0.010%	0.009%	0.009%
Invalid	0.15%	0.27%	0.21%	0.20%	0.26%
Oxidizing Adulterants	0.000%	0.000%	0.000%	0.000%	0.000%
Substitution	0.05%	0.019%	0.017%	0.016%	0.014%

²Specimen validity testing is the evaluation of a specimen to determine if it is consistent with a normal human specimen. Tests for specimen validity include tests to determine whether a specimen is adulterated or substituted.

**Table 9. Non-Negative Rates by Specimen Validity Test (SVT) Category – Urine Drug Tests
(For General U.S. Workforce, as a percentage of all such tests)**

(More than 6 million tests from January to December 2021)

SVT Category	2017	2018	2019	2020	2021
Acid-Base	0.004%	0.010%	0.009%	0.009%	0.009%
Invalid	0.15%	0.21%	0.18%	0.17%	0.26%
Oxidizing Adulterants	0.000%	0.000%	0.000%	0.000%	0.000%
Substitution	0.014%	0.014%	0.015%	0.012%	0.013%

**Table 10. Non-Negative Rates by Drug/SVT Category – Urine Drug Tests
(For Federally Mandated, Safety-Sensitive Workforce, as a percentage of all non-negatives)**

(Nearly 70 thousand non-negative test results from January to December 2021)

Drug/SVT Category	2017	2018	2019	2020	2021
6-AM	0.82%	0.40%	0.40%	0.31%	0.18%
Acid-Base	1.0%	0.41%	0.34%	0.35%	0.33%
Amphetamines (Amphetamine/Methamphetamine)	29.5%	22.1%	24.3%	25.9%	26.6%
Cocaine	13.7%	9.2%	9.1%	8.1%	8.0%
Invalid	6.4%	8.7%	7.5%	7.9%	10.0%
Marijuana	36.8%	28.4%	31.5%	31.9%	33.1%
MDMA (MDMA/MDA)	0.23%	0.09%	0.09%	0.09%	0.08%
Opiates (Codeine/Morphine)	8.2%	4.7%	4.2%	3.9%	3.1%
Opiates (Hydrocodone/Hydromorphone)	-	14.2%	12.3%	12.0%	10.2%
Oxidizing Adulterants	0.000%	0.000%	0.000%	0.000%	0.000%
Oxycodones (Oxycodone/Oxymorphone)	-	10.9%	9.3%	8.5%	7.5%
PCP	1.1%	0.41%	0.41%	0.43%	0.38%
Substituted	2.2%	0.62%	0.61%	0.65%	0.56%

**Table 11. Non-Negative Rates by Drug/SVT Category – Urine Drug Tests
(For General U.S. Workforce, as a percentage of all non-negatives)**

(Nearly 375 thousand non-negative test results from January to December 2021)

Drug/SVT Category	2017	2018	2019	2020	2021
6-AM	0.12%	0.12%	0.09%	0.08%	0.06%
Acid-Base	0.07%	0.17%	0.16%	0.15%	0.15%
Amphetamines (Amphetamine/Methamphetamine)	22.4%	22.3%	22.7%	21.5%	22.1%
Barbiturates	3.0%	2.5%	2.2%	2.0%	1.9%
Benzodiazepines	7.1%	5.8%	4.6%	3.9%	3.7%
Cocaine	5.5%	5.1%	4.7%	3.7%	3.4%
Invalid	2.7%	3.7%	3.1%	3.0%	4.3%
Marijuana	47.4%	49.3%	53.1%	57.8%	57.5%
MDMA (MDMA/MDA)	0.03%	0.04%	0.05%	0.06%	0.03%
Methadone	2.0%	1.9%	1.7%	1.4%	1.3%
Opiates	7.2%	5.6%	4.5%	3.5%	2.9%
Opiates (Hydrocodone/Hydromorphone)	-	0.91%	0.87%	0.91%	0.85%
Oxidizing Adulterants	0.000%	0.000%	0.000%	0.000%	0.000%
Oxycodones (Oxycodone/Oxymorphone)	2.1%	2.2%	1.9%	1.6%	1.6%
PCP	0.24%	0.20%	0.20%	0.16%	0.13%
Propoxyphene	0.016%	0.010%	0.005%	0.007%	0.002%
Substituted	0.26%	0.24%	0.26%	0.21%	0.21%

**Table 12. Non-Negative Rates by Drug/SVT Category – Urine Drug Tests
(For Combined U.S. Workforce, as a percentage of all non-negatives)**

(More than 440 thousand non-negative test results from January to December 2021)

Drug/SVT Category	2017	2018	2019	2020	2021
6-AM	0.21%	0.17%	0.14%	0.12%	0.08%
Acid-Base	0.20%	0.21%	0.19%	0.18%	0.17%
Amphetamines (Amphetamine/Methamphetamine)	23.4%	22.3%	22.9%	22.2%	22.8%
Barbiturates	2.6%	2.0%	1.8%	1.7%	1.6%
Benzodiazepines	6.2%	4.8%	3.9%	3.3%	3.1%
Cocaine	6.5%	5.8%	5.4%	4.4%	4.1%
Invalid	3.2%	4.5%	3.8%	3.8%	5.2%
Marijuana	46.0%	45.8%	49.7%	53.6%	53.7%
MDMA (MDMA/MDA)	0.06%	0.05%	0.06%	0.07%	0.04%
Methadone	1.7%	1.6%	1.4%	1.1%	1.1%
Opiates	7.3%	5.5%	4.4%	3.6%	2.9%
Opiates (Hydrocodone/Hydromorphone)	-	3.2%	2.7%	2.7%	2.3%
Oxidizing Adulterants	0.000%	0.000%	0.000%	0.000%	0.000%
Oxycodones (Oxycodone/Oxymorphone)	1.9%	3.7%	3.1%	2.7%	2.5%
PCP	0.35%	0.24%	0.23%	0.20%	0.17%
Propoxyphene	0.014%	0.008%	0.004%	0.006%	0.002%
Substituted	0.51%	0.31%	0.31%	0.28%	0.26%

**Table 13. Positivity Rates by Testing Category – Oral Fluid Drug Tests
(For General U.S. Workforce)**

(Nearly 2 million tests from January to December 2021)

2017	2018	2019	2020	2021
10.4%	10.2%	10.5%	13.6%	7.3%

**Table 14. Positivity Rates by Testing Reason – Oral Fluid Drug Tests
(For General U.S. Workforce)**

(Nearly 2 million tests from January to December 2021)

Testing Reason	2017	2018	2019	2020	2021
Post-Accident	5.7%	5.8%	5.4%	5.8%	8.5%
Pre-Employment	10.6%	10.5%	10.7%	13.9%	7.1%
Random	6.1%	6.2%	6.0%	5.6%	5.5%

**Table 15. Positivity Rates by Drug Category – Oral Fluid Drug Tests
(For General U.S. Workforce)**

(Nearly 2 million tests from January to December 2021)

Drug Category	2017	2018	2019	2020	2021
Amphetamine	0.66%	0.73%	0.67%	0.71%	0.80%
Cocaine/Metabolite	0.73%	0.59%	0.57%	0.58%	0.85%
Marijuana	8.8%	8.7%	9.1%	12.3%	14.8%
Methamphetamines	0.43%	0.47%	0.49%	0.53%	0.67%
Opiates	0.57%	0.44%	0.35%	0.31%	0.27%
Oxycodones	-	0.31%	0.28%	0.24%	0.24%
PCP	0.06%	0.04%	0.05%	0.04%	0.05%

**Table 16. Positivity Rates by Testing Category – Hair Drug Tests
(For General U.S. Workforce)**

(More than 90 thousand tests from January to December 2021)

2017	2018	2019	2020	2021
10.3%	10.9%	11.2%	12.8%	13.1%

**Table 17. Positivity Rates by Testing Reason – Hair Drug Tests
(For General U.S. Workforce)**

(More than 90 thousand tests from January to December 2021)

Testing Reason	2017	2018	2019	2020	2021
Pre-Employment	8.9%	9.4%	9.0%	9.8%	10.1%
Random	10.6%	10.1%	12.0%	16.7%	18.3%

**Table 18a. Positivity Rates by Drug Category – Hair Drug Tests
(For General U.S. Workforce)**

(More than 40 thousand tests from January to June 2021 – Old Technology)

Drug Category	2017	2018	2019	2020	2021
Amphetamines (Methamphetamine)	2.0%	2.0%	2.4%	2.6%	2.4%
Cocaine	3.2%	3.4%	3.2%	3.2%	2.8%
Marijuana	6.4%	6.8%	7.1%	8.7%	9.8%
Opiates	0.38%	0.39%	0.32%	0.29%	0.20%
PCP	0.014%	0.016%	0.012%	0.03%	0.012%

**Table 18b. Positivity Rates by Drug Category – Hair Drug Tests
(For General U.S. Workforce)**

(More than 50 thousand tests from June to December 2021 – New Technology)

Drug Category	2021
6-AM	0.08%
Amphetamine	1.8%
Benzoyllecgonine	1.1%
Cocaine	2.7%
Marijuana	9.5%
MDA	0.03%
MDMA	0.13%
Methamphetamine	2.1%
Opiates (Codeine/Hydrocodone)	0.37%
Opiates (Morphine/Hydromorphone)	0.06%
Oxycodone	0.60%
Oxymorphone	0.03%
PCP	0.02%

Table 19. Post-Accident vs. Pre-Employment Positivity Rates for Marijuana – Urine Drug Tests (For Federally Mandated, Safety-Sensitive Workforce, as a percentage of all such tests)

(Nearly 2.7 million tests from January to December 2021)

Drug Category	2013	2014	2015	2016	2017	2018	2019	2020	2021
Pre-Employment (PE)	0.85%	0.88%	0.90%	0.93%	0.99%	1.0%	1.0%	0.95%	1.1%
Post-Accident (PA)	0.95%	1.0%	1.1%	1.2%	1.3%	1.5%	1.6%	1.6%	1.8%
% Difference PE vs. PA	11.8%	13.6%	22.2%	29.0%	31.3%	50.0%	60.0%	68.4%	63.6%

Table 20. Post-Accident vs. Pre-Employment Positivity Rates for Marijuana – Urine Drug Tests (For General U.S. Workforce, as a percentage of all such tests)

(More than 6 million tests from January to December 2021)

Drug Category	2013	2014	2015	2016	2017	2018	2019	2020	2021
Pre-Employment (PE)	2.0%	2.2%	2.3%	2.4%	2.6%	2.8%	3.1%	3.7%	4.1%
Post-Accident (PA)	2.7%	3.3%	3.5%	3.8%	4.2%	4.8%	5.7%	6.4%	6.7%
% Difference PE vs. PA	35.0%	50.0%	52.2%	58.3%	61.5%	71.4%	83.9%	73.0%	63.4%

Table 21. Post-Accident vs. Pre-Employment Positivity Rates for Cocaine – Urine Drug Tests (For Federally Mandated, Safety-Sensitive Workforce, as a percentage of all such tests)

(Nearly 2.7 million tests from January to December 2021)

Drug Category	2017	2018	2019	2020	2021
Pre-Employment (PE)	0.34%	0.31%	0.27%	0.21%	0.21%
Post-Accident (PA)	0.52%	0.55%	0.47%	0.44%	0.46%
% Difference PE vs. PA	52.9%	77.4%	74.1%	109.5%	119.0%

Table 22. Post-Accident vs. Pre-Employment Positivity Rates for Cocaine – Urine Drug Tests (For General U.S. Workforce, as a percentage of all such tests)

(More than 6 million tests from January to December 2021)

Drug Category	2017	2018	2019	2020	2021
Pre-Employment (PE)	0.25%	0.24%	0.23%	0.18%	0.18%
Post-Accident (PA)	0.63%	0.71%	0.73%	0.63%	0.66%
% Difference PE vs. PA	152.0%	195.8%	217.4%	250.0%	266.7%

Table 23. Post-Accident vs. Pre-Employment Positivity Rates for Opiates (Hydrocodone/Hydromorphone) – Urine Drug Tests (For Federally Mandated, Safety-Sensitive Workforce, as a percentage of all such tests)

(Nearly 2.7 million tests from January to December 2021)

Drug Category	2017	2018	2019	2020	2021
Pre-Employment (PE)	-	0.36%	0.27%	0.22%	0.21%
Post-Accident (PA)	-	1.1%	0.89%	0.81%	0.75%
% Difference PE vs. PA	-	205.6%	229.6%	268.2%	257.1%

Table 24. Post-Accident vs. Pre-Employment Positivity Rates for Opiates (Hydrocodone/Hydromorphone) – Urine Drug Tests (For General U.S. Workforce, as a percentage of all such tests)

(More than 6 million tests from January to December 2021)

Drug Category	2017	2018	2019	2020	2021
Pre-Employment (PE)	0.42%	0.35%	0.26%	0.23%	0.24%
Post-Accident (PA)	1.2%	1.2%	1.1%	0.95%	1.0%
% Difference PE vs. PA	185.7%	242.9%	323.1%	313.0%	316.7%

Table 25. Post-Accident vs. Pre-Employment Positivity Rates for Oxycodones (Oxycodone/Oxymorphone) – Urine Drug Tests (For Federally Mandated, Safety-Sensitive Workforce, as a percentage of all such tests)

(Nearly 2.7 million tests from January to December 2021)

Drug Category	2017	2018	2019	2020	2021
Pre-Employment (PE)	-	0.30%	0.22%	0.17%	0.17%
Post-Accident (PA)	-	0.77%	0.58%	0.52%	0.50%
% Difference PE vs. PA	-	156.7%	163.6%	205.9%	194.1%

Table 26. Post-Accident vs. Pre-Employment Positivity Rates for Oxycodones (Oxycodone/Oxymorphone) – Urine Drug Tests (For General U.S. Workforce, as a percentage of all such tests)

(More than 6 million tests from January to December 2021)

Drug Category	2017	2018	2019	2020	2021
Pre-Employment (PE)	0.45%	0.35%	0.28%	0.24%	0.24%
Post-Accident (PA)	1.3%	0.95%	0.77%	0.62%	0.72%
% Difference PE vs. PA	188.9%	171.4%	175.0%	158.3%	200.0%

**Table 27. Marijuana Positivity by 2021 State Legalized Use Status – Urine Drug Tests
(For Federally Mandated, Safety-Sensitive Workforce, as a percentage of all tests for Marijuana Metabolite)**

(Nearly 2.7 million tests from January to December 2021)

Drug Category	2013	2014	2015	2016	2017	2018	2019	2020	2021
Recreational Use	0.66%	0.71%	0.72%	0.81%	0.87%	0.93%	0.94%	0.86%	0.94%
Medical Use Only	0.70%	0.74%	0.74%	0.81%	0.85%	0.87%	0.92%	0.81%	0.85%
Neither Recreational nor Medical Use	0.64%	0.67%	0.69%	0.75%	0.83%	0.88%	0.83%	0.73%	0.79%
National	0.67%	0.71%	0.71%	0.78%	0.84%	0.88%	0.88%	0.79%	0.86%

**Table 28. Marijuana Positivity by 2021 State Legalized Use Status – Urine Drug Tests
(For General U.S. Workforce, as a percentage of all tests for Marijuana Metabolite)**

(More than 6 million tests from January to December 2021)

Drug Category	2013	2014	2015	2016	2017	2018	2019	2020	2021
Recreational Use	2.2%	2.3%	2.4%	2.6%	2.7%	3.1%	3.8%	4.4%	5.1%
Medical Use Only	1.9%	2.0%	2.1%	2.1%	2.2%	2.5%	2.8%	3.2%	3.6%
Neither Recreational nor Medical Use	2.1%	2.7%	2.6%	2.7%	2.8%	2.7%	2.7%	3.0%	3.0%
National	2.1%	2.4%	2.4%	2.5%	2.6%	2.8%	3.1%	3.6%	3.9%