



Health Trends[®]

Drug Misuse in America 2021

Physician Perspectives and Diagnostic Insights
on the Drug Crisis and COVID-19

November 2021

Since early 2020, the world has grappled with the devastating public health emergency caused by COVID-19. With more than 5 million deaths worldwide and over 750,000 in the United States alone, ending the pandemic remains the top health concern. **Yet the pandemic also exacerbated significant public health tragedies that predated it, particularly the national mental health and opioid misuse crises.**

As recently as 2018, it appeared that drug overdoses were on the decline for the first time in over a decade. Sadly, this improvement was short-lived. Amid the pandemic's days of self-isolation, delayed medical care, economic dislocation, and mental distress, drug misuse surged. In July 2021, the CDC reported that **drug overdose deaths, fueled largely by fentanyl, rose to over 96,779 from March 2020–March 2021, the highest ever in a single year.**¹

This Quest Diagnostics Health Trends[®] report examines the contributing factors to this increase and whether health professionals face barriers in their ability to monitor and intervene with their patients at risk for drug misuse. Our perspective comes primarily from two sets of data—a new online survey, conducted for Quest Diagnostics and Partnership to End Addiction by The Harris Poll, of over 500 primary care physicians, and results of clinical drug laboratory testing performed by Quest Diagnostics across the United States.

This research reveals that physicians need comprehensive resources to identify risk, combat drug misuse and care for suffering patients. Guidelines that are clear and flexible—harnessing not only medically appropriate clinical drug testing, but also telehealth, home-based care and other consumer-centric approaches—will improve physicians' ability to deliver the right care, at the right time, for the individual patient.

As the world envisions a time beyond COVID-19, let us also look to a future free of drug overdose. May the perspectives of physicians raised in this report help point the way.



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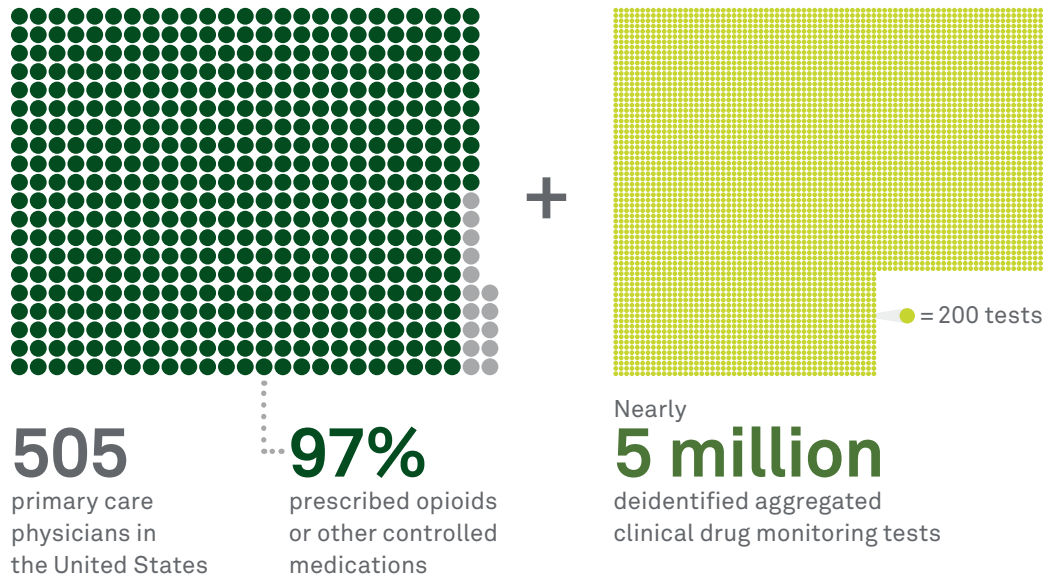
Drug overdose deaths, fueled largely by fentanyl, rose to over 96,779 in March 2020–March 2021, the highest ever in a single year.

These research findings reveal the need to arm physicians with comprehensive resources to identify risk and combat drug misuse.

Summary

Drug Misuse in America 2021: Physician Perspectives and Diagnostic Insights on the Drug Crisis and COVID-19, a Quest Diagnostics Health Trends[®] report, provides a unique snapshot of the impact of the pandemic on drug misuse and health professionals' confidence in their ability to manage patients amid a shifting epidemic of prescription and illicit drug misuse.

The report presents findings from an online survey commissioned by Quest Diagnostics with Partnership to End Addiction, conducted in August 2021 by The Harris Pool. Of the 505 US primary care physicians polled, nearly all (97%) reported prescribing opioids or other controlled medications within 6 months of taking the survey. The report juxtaposes insights from the survey data with analysis of results of nearly 5 million deidentified laboratory tests performed by Quest Diagnostics from 2011 through 2020 for patients in all 50 states and the District of Columbia.



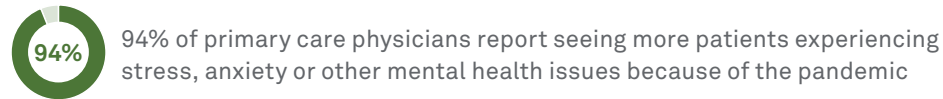
This report is believed to be the first to combine insights from both nationally representative, objective deidentified laboratory data and survey responses from primary care physicians about the use of controlled prescribed medications and illicit drugs in the United States during the COVID-19 pandemic.

“**The twin addiction and overdose crises have collided with the COVID-19 pandemic, each exacerbating the deleterious effects of the other, resulting in increased rates of substance use and overdose, and increased risk for serious effects of COVID-19 illness.**”

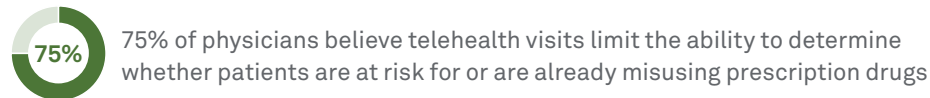
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National Institute on Drug Abuse

Key Findings

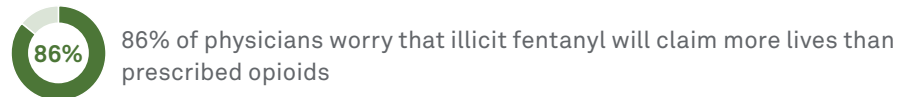
1. The pandemic worsened the drug crisis and physicians anticipate a continuing rise in overdose deaths



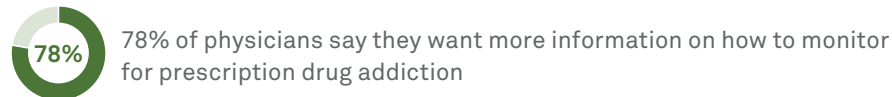
2. Physicians worry they have missed signs of drug misuse and use disorders during the pandemic and express concerns about telehealth



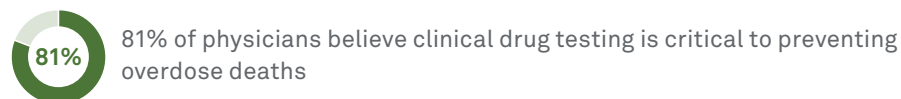
3. Physicians prescribe more gabapentin than opioids for chronic pain and worry patients will turn to illicit fentanyl



4. Despite physician confidence in counseling patients, nearly half of tested patients show drug misuse



5. Clinical drug testing is deemed critical, but clearer guidelines would help optimize its use



The US is Facing a Triple Threat to Public Health



COVID-19



Declining mental health



Drug misuse

Drug overdose deaths rose nearly

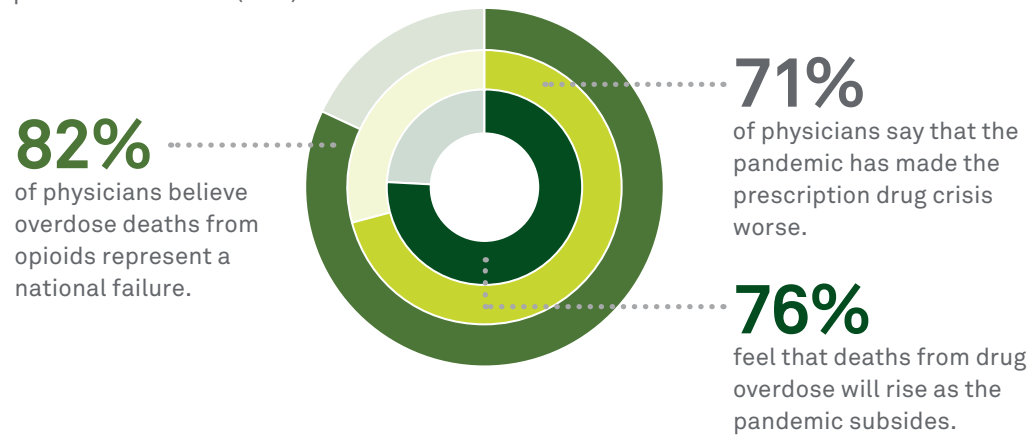
30%

to more than 96,779 in 2020² (CDC)

Finding 1: Physicians say the pandemic worsened the drug crisis, and anticipate a continuing rise in overdose deaths

Physicians recognize that the pandemic and associated mental health crisis have intensified the risk of drug misuse in the United States, leading to a potential triple threat to those at risk and reversing progress seen as recently as 2019 in a declining overdose death rate.³ Yet, the gravity of this triple threat may be lost in the focus on COVID-19, with 76% of physicians worried that the pandemic detracts attention from the drug misuse crisis. The vast majority (82%) of physicians believe that overdose deaths from opioids represent a national failure.

Nearly all (94%) physicians report seeing more patients experiencing stress, anxiety, or other mental health issues because of the pandemic and fear a correlation between rising mental health issues and prescription drug misuse. In fact, more than two-thirds (71%) of physicians believe that the pandemic has made the prescription drug crisis worse than it already was and that deaths from drug overdose will continue to rise even as the pandemic subsides (76%).



Contributing to their concerns is that individuals identified as needing medications for opioid use disorder (MOUD) might not have been able to readily access treatment as physician offices closed during the pandemic. **Clinical drug tests performed by Quest for MOUD patients showed increases in nonprescribed fentanyl use early in the pandemic.⁴ At the end of 2019, 26.7% of specimens from patients receiving MOUD tested positive for nonprescribed fentanyl. By early April 2020, the rate had increased to 40.5%.**

“Large increases in many kinds of drug use and overdose [deaths] have been recorded since March 2020, when a national emergency was declared and our lives radically changed due to lockdown and the closure of businesses and schools.”

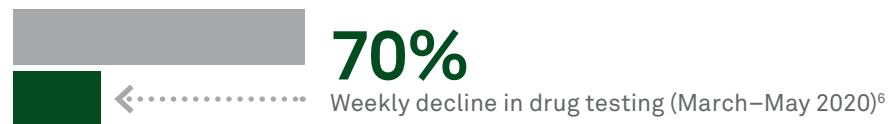
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National Institute on Drug Abuse

Finding 2: Physicians worry they have missed signs of drug misuse and use disorders during the pandemic, and express concerns about telehealth

The pandemic spurred shifts in how, when, and where healthcare is delivered, with potentially far-reaching consequences for patients at risk of drug misuse. One troubling survey statistic foretells this predicament: 67% of physicians worry that they have missed signs of drug misuse and use disorders among one or more of their patients during the pandemic.

The majority of U.S. adults (60%) skipped or delayed some in-person medical treatments or appointments during the COVID-19 pandemic, according to a **Quest Health Trends report** from December 2020.⁵ Other Quest Health Trends data show steep declines in clinical drug testing (as well as cancer, hepatitis, and diabetes) during much of 2020.

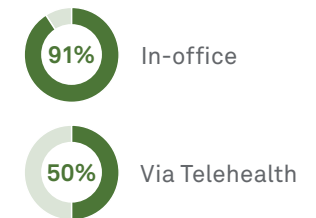
Eighty percent of physicians worry that some patients at high risk for drug misuse or use disorders stopped seeing their doctor during the pandemic and, potentially, permanently. And while **most (88%) physicians believe that clinical drug testing is critical to preventing drug misuse**, Quest experienced a 70% decline in clinical drug testing volumes between March 2020 and May 2020, raising the prospect of delays in testing for some at-risk patients. In fact, 80% of physicians believe that the lack of drug testing during the pandemic put more people at risk for undetected drug misuse or use disorders.



Physicians also expressed concerns about the use of telehealth, which surged during the pandemic, to care for patients at risk of drug misuse. **Three-quarters (75%) of physicians note that telehealth visits limit the ability to determine if patients are at risk for or are already misusing prescription drugs.** While the majority of physicians (91%) feel confident that they can recognize the signs of prescription drug misuse based on in-office interactions with patients, **only 50% report the same level of confidence based on telehealth interactions.**

Research suggests telehealth is emerging as a complement to versus a replacement for in-person care, and flexible care models should aim to maximize the value of both. Importantly, clinical drug testing, which typically involves urine analysis, is difficult to implement.⁷

Physician confidence in recognizing signs of drug misuse:



80%
say a lack of drug testing during the pandemic put more people at risk for undetected drug misuse or use disorders

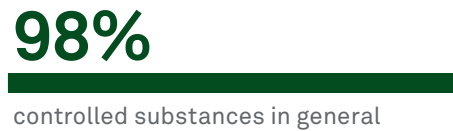
67%
worry that they have missed signs of drug misuse and use disorders among one or more of their patients during the pandemic

Finding 3: Physicians prescribe more gabapentin than opioids for chronic pain and worry patients will turn to illicit fentanyl

The COVID-19 pandemic disrupted medical care, impacting prescribing of opioid analgesics and buprenorphine for opioid use disorder. During this time, deaths due to opioid overdose increased, potentially associated with reduced access to care.

Physicians are concerned (98%) about the misuse of controlled substances in general, with three-quarters (75%) very concerned about opioid misuse. This may be why physicians prescribed gabapentin, with 87% of physicians saying they prescribed gabapentin for chronic pain in the past 6 months while about two-thirds prescribed opioids (65%).

Percentage of physicians concerned about the misuse of



Percentage prescribed for chronic pain in the past 6 months



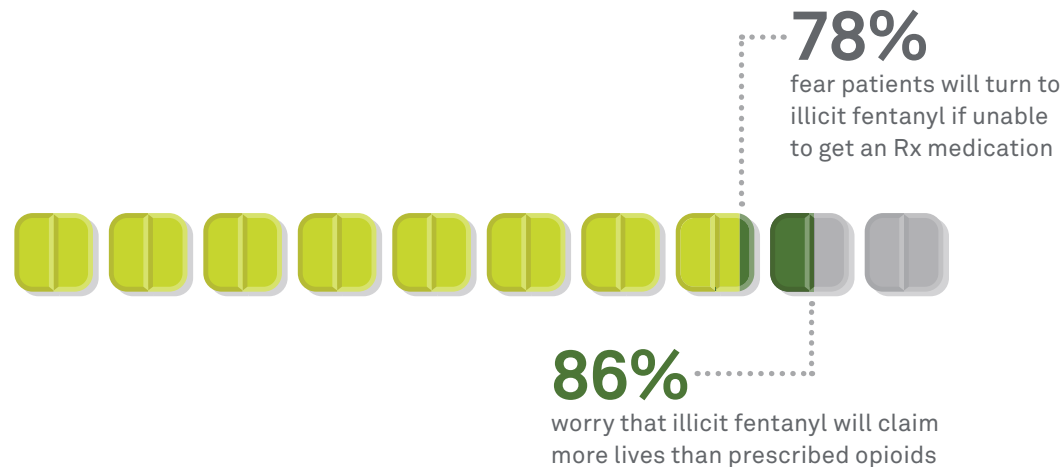
Gabapentin

Gabapentin, an anticonvulsant that can be used to relieve neuropathic pain, is a non-opioid pain treatment that may be prescribed as an alternative to opioids for managing chronic pain. When taken alone and as prescribed, there is little potential for misuse or addiction. However, when a person takes gabapentin with other medications, such as muscle relaxants, opioids, or anxiety medications, it can produce a high.

Twenty-seven percent of physicians say gabapentin prescribing for chronic pain will increase in the next 6 months; only 7% say the same for opioids.

Finding 3: Fear of illicit fentanyl

Seventy-eight percent of physicians fear that patients will turn to illicit fentanyl if they cannot get a prescription medication (versus 72% when asked in 2019⁸), and 86% worry that illicit fentanyl will claim more lives than prescribed opioids. These concerns may be well founded given CDC data showing fentanyl involvement in more than 60% of overdose deaths in 2020, as prescription and illicit drugs are increasingly combined with fentanyl.⁹



Moreover, while testing for prescription and illicit drugs declined during the pandemic, among those who were tested, Quest laboratory data from 2020 found positivity rates increased by 35% for non-prescribed fentanyl (from 4.3% prior to the pandemic to 5.8% during the pandemic) and 44% for heroin (from 0.9% to 1.3%). **Non-prescribed fentanyl was also widely detected in results of tests for other drugs, including amphetamines, prescription opioids, and cocaine.**¹⁰



“
The pandemic has overturned gains that have been made in addressing the opioid epidemic. With a rising mental health crisis and more fentanyl in illicit drugs, we are truly facing a potential catastrophe.”

—
Partnership to End Addiction

Finding 4: Despite physician confidence in counseling patients, nearly half of tested patients show drug misuse

Ninety-six percent of physicians report they are very confident in their ability to discuss the risks of prescription drug misuse. Nearly all say they talk to their patients who are prescribed a controlled substance about the dangers, including fatality, associated with prescription drug misuse (96%) or potentially dangerous prescription drug combinations (98%). Nine in 10 (89%) are confident in their ability to address confirmed prescription drug misuse with patients.

A good deal of physician confidence comes from their use of clinical drug testing to monitor patients, with 85% reporting that such testing gives them confidence that they are prescribing safely. **Yet, of physicians who have prescribed controlled medications in the last 6 months, 77% say they don't always use drug monitoring tests.**



88%

of physicians report feeling confident (19% very confident) they can identify patients at risk for drug use and misuse



48%

of patients tested show signs of drug misuse (half of these show dangerous drug combining)



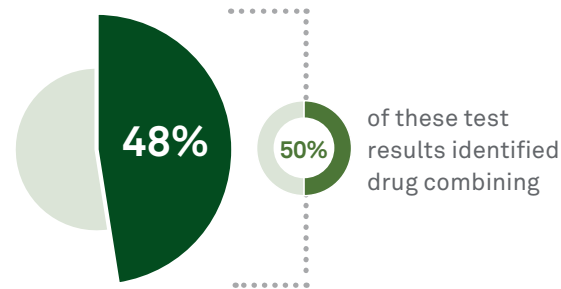
~9 in 10

(89%) are confident in their ability to address confirmed prescription drug misuse with patients

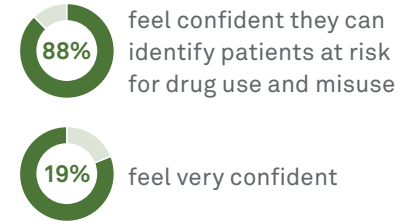
Finding 4: Confidence in counseling

Analysis of objective laboratory data suggest this physician confidence may be misplaced. According to 2020 Quest Health Trends data from more than 475,000 de-identified test results, **nearly half of all patients tested (48%) showed signs of misuse. Of these, one in two test results identified drug combining, a potentially dangerous form of drug misuse.** Perhaps these data help explain cracks in physician confidence: of the majority (88%) who report they feel confident they can identify patients at risk for drug use and misuse, **only 19% say they feel very confident.**

Patients who showed signs of misuse:

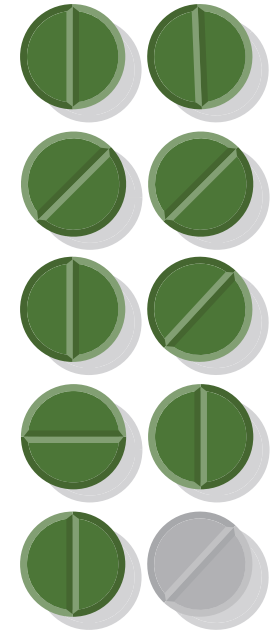


Physicians:



Physicians are also less confident in their ability to care for patients with a drug misuse disorder. **Only 34% of physicians feel very confident that they know how to prescribe naloxone to patients they believe may be at risk for an overdose.** More than three-quarters of physicians (78%) say they want more information on how to monitor for prescription drug addiction and wish they had more training on what to do if a patient is showing signs of prescription drug addiction.

Sixty-nine percent of physicians report needing more tools to be able to address racial/ethnic disparities in prescription drug management. Other research shows that Black patients on long-term opioid therapy are more likely to be drug tested by their doctors and significantly more likely to have their opioid prescription stopped if an illicit drug is detected. Black patients may be subjected to more drug tests, but are not more likely, which is why nearly 9 in 10 physicians (88%) believe that better guidelines would help to ensure that clinical drug testing is used equitably, and 50% strongly agree.¹¹



~9 in 10
(88%) agree that better guidelines would help ensure that clinical drug testing is used equitably, and 50% strongly agree

Finding 5: Clinical drug testing is considered critical by physicians to preventing drug misuse and overdose, but clearer guidelines would help optimize this tool

The larger majority of physicians agree that clinical drug testing is critical to preventing drug misuse (88%) and overdose deaths (81%), and is increasingly becoming the standard of care when prescribing controlled substances (86%).

Clinical drug testing is deemed the standard of care



88% agree that clinical drug testing is critical to preventing drug misuse



81% agree that clinical drug testing is critical to preventing overdose deaths

The most common practice of physicians is to use a combination of presumptive and definitive tests on the same specimen. Specifically, 39% of physicians who use clinical drug testing perform a presumptive test first and, if the result is positive or inconclusive, perform a definitive test on the sample collected on the same day as the presumptive test. By comparison, 16% order only presumptive tests and 19% order definitive tests for all patients.

Moreover, 90% of physicians say presumptive testing gives them important insights to deliver care quickly while waiting for a definitive drug test.

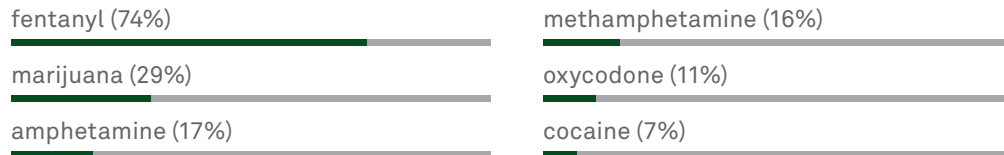
39%

Physicians who order presumptive and definitive tests (to confirm a positive or inconclusive presumptive test) on the same sample.

Finding 5: Clinical drug testing

However, roughly half of all physicians who have prescribed controlled substances in the past 6 months do not order definitive testing for positive (51%) or inconclusive (47%) presumptive results. While definitive testing is not always required, these survey findings take on new urgency amid increased fentanyl-drug combining and limitations in identifying fentanyl, a major source of overdose deaths. Quest research shows that presumptive testing by point-of-care devices miss a substantial proportion of true positive specimens with fentanyl (74%), among other drugs.

If only presumptive tests at point of care are used, positive specimens may be missed for¹²



Best practice and FDA product labeling (for some presumptive test kits) recommend testing on the same specimen to confirm a result. Using the same specimen for presumptive and definitive testing may reduce medical visits, travel time and costs that may disproportionately impact low-income, elderly, and other disadvantaged groups. These factors may explain why 95% of physicians expressed concerns about the prospect of changes to reimbursement policy to require presumptive and definitive drug testing to be conducted on 2 distinct specimens collected on different days, with 59% saying they would not support such a policy shift.

Doctors have concerns if presumptive and definitive drug testing must take place on samples collected on different days

64% ●●●●●●●●●●
increased potential for patients to manipulate results (i.e., change behavior) between tests

60% ●●●●●●●●●●
decreased patient compliance (i.e., patients may not come back for a second test)

49% ●●●●●●●●●●
place additional time and/or cost burden on the patient

39% ●●●●●●●●●●
inadvertently create more cost for the healthcare system (e.g., by missing misuse)

Presumptive and Definitive Clinical Drug Testing: What's the difference?

Medical best practice recognizes the value of presumptive screening and definitive testing to confirm a result on the same specimen.



Presumptive testing methods include using rapid point-of-care (POC) devices as well as more sensitive laboratory immunoassays. While POC testing devices (e.g., cups or dipsticks) provide rapid and inexpensive qualitative results (i.e., negative, positive). They:

- often have lower sensitivity and specificity when compared to definitive testing which leads to false-negative and false-positive results
- may not be readily available for some of the commonly used and potentially misused medications such as tapentadol, carisoprodol, gabapentin, and emerging synthetic drugs that are misused

For these reasons, FDA labeling on some POC devices as well as medical guidelines remind physicians that the results are merely preliminary and may require definitive laboratory confirmation.



Definitive testing utilizes highly complex laboratory instruments to identify and quantify prescription medications, illicit substances, and specific parent drugs and their metabolites often missed by POC testing. Definitive testing is recommended for unique situations, such as for a positive presumptive test for a patient showing signs of misuse. Its greater sensitivity can confirm or refute presumptive test results and reduces the occurrence of false-positive/false-negative results. However, definitive testing can take days to produce a result and is typically more expensive than presumptive testing.

Physicians value definitive drug testing:

86% ●●●●●●●●●●

see definitive drug testing as essential to providing care to patients prescribed controlled substances

75% ●●●●●●●●●●

say definitive drug testing is the only way they truly know what drugs their patient is taking

61% ●●●●●●●●●●

believe that definitive drug testing is "worth it at any cost"

55% ●●●●●●●●●●

agree that presumptive tests miss a lot of misuse that definitive drug tests identify

Methodology

The 2021 survey was conducted online within the United States by The Harris Poll on behalf of Quest Diagnostics from August 12–19, 2021 among 505 physicians who specialize in family practice, general practice, or internal medicine, and are licensed in the state where they practice. Results are weighted for years in practice, by gender, and region to align them with their actual proportions in the population. This online survey is not based on a probability sample and therefore no estimate of theoretical sampling error can be calculated.

Results referenced from the Quest Diagnostics 2019 survey were also from an online survey conducted by The Harris Poll on behalf of Quest Diagnostics among 500 physicians. More information from that survey can be found at www.QuestDiagnostics.com.

The Health Trends laboratory analyses examined the association of age, gender, health plan type, and geography on drug test result inconsistency rates. The analysis is based on nearly 5 million deidentified test results from 2011-2020, with approximately 475,000 of these from 2020 alone. All patients were tested using the proprietary Quest Diagnostics prescription drug monitoring service and our medMATCH[®] reporting methodology for tests of commonly prescribed and misused drugs, including pain medications, central nervous system stimulants including amphetamines, as well as certain illicit drugs such as marijuana and cocaine. Our medMATCH reports indicate whether the prescribed drug(s), as specified by the ordering provider, or other drugs are detected in a specimen. Drug testing may include presumptive immunoassay screens as well as definitive mass spectrometry quantitative analyses and confirmations of presumptive positive results.

Our study's strengths include its size, geographic scope, multiple years of test results, and its use of validated testing by mass spectrometry, the most sensitive and specific drug testing method. Its limitations include geographic disparities and our inability to validate or contextualize test results with medical records.

Patient variations, such as hydration state and drug metabolism, and methodology limitations, can contribute to a failure to detect drugs in a small minority of specimens. Laboratory testing does not identify substance use disorders or impairment due to drug use. It is possible that in some cases, patients were referred to testing because their healthcare providers suspected misuse. In addition, some healthcare providers may have neglected to indicate all prescribed drugs a patient was taking when submitting the test request. The population of patients may have shifted over time.

Quest Diagnostics Health Trends[™] studies are performed on aggregate de-identified data in compliance with applicable privacy regulations and the company's strict privacy policies, and follow procedures approved by the Western Institutional Review Board.

About Drug Monitoring Tests and Drug Misuse

Laboratory test results provide objective information that can assist healthcare providers to assess patients' use of prescribed medications, other controlled non-prescribed drugs, and illicit drugs. Medical guidelines recommend clinical drug testing involving presumptive screening and definitive testing to confirm a result in certain cases.¹³

In the case of prescription drug monitoring, a healthcare provider orders clinical drug testing and indicates the drug or drugs prescribed for the patient. Quest Diagnostics categorizes results as consistent or inconsistent (which may signify misuse) based on the presence of drugs or drug metabolites identified through laboratory testing and their alignment with the prescription information provided by the healthcare provider.

A consistent result indicates that the prescribed drug or drugs found match those the healthcare provider indicated were prescribed for the patient on the test order.

An inconsistent result—suggesting possible misuse—occurs when



Additional drugs are found

All prescribed drugs are detected, but at least one other drug, non-prescribed or illicit, is also detected



Different drugs are found

At least one prescribed drug is not detected, and at least one other drug, non-prescribed or illicit, is detected



No drugs are found

At least one prescribed drug was not detected, and non-prescribed or illicit drug(s) were also not detected

Why would a prescribed drug not be found?



Patients may not take their prescribed drugs due to concerns of side effects, because their pain or other symptoms have subsided, or to hoard for future pain relief



Some patients may not take their prescribed drugs because they cannot afford them



Some patients sell or give their drugs to others not authorized to use them



A small number of patients may be rapid metabolizers of the prescribed drug and the drug or metabolite is undetectable at the time of testing



About Quest Diagnostics Health Trends[®]

Quest Diagnostics Health Trends[®] is a series of scientific reports that provide insights into health topics, based on analysis of objective clinical laboratory data, to empower better patient care, population health management and public health policy. The reports are based on the Quest Diagnostics database of nearly 60 billion deidentified laboratory test results, believed to be the largest of its kind in healthcare. Developed in collaboration with top research institutions, Quest publishes Health Trends as studies in peer-reviewed journals, at scientific conferences, and as special reports. Health Trends has yielded novel insights to aid the management of allergies and asthma, clinical (prescription) drug monitoring, diabetes, Lyme disease, heart disease, influenza, and employer wellness.

Quest Diagnostics also produces the **Drug Testing Index (DTI)[™]**, a series of reports on national workplace drug positivity trends based on the company's deidentified employer workplace drug testing data.

While a team of medical, data, and communication experts contributed to this report, additional analysis was performed by Harvey W. Kaufman, M.D.; Justin K. Niles, M.A., Jeffrey Gudin, M.D., and Jack Kain, PharmD, from Quest Diagnostics. Linda Richter, Ph.D., vice president of Prevention Research and Analysis at Partnership to End Addiction, advised report development.

Quest Diagnostics empowers people to take action to improve health outcomes at www.QuestDiagnostics.com. To access other Health Trends reports, please visit **Quest Diagnostics Newsroom - Health Trends[®]**.

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About Partnership to End Addiction

Partnership to End Addiction is a national nonprofit uniquely positioned to reach, engage and help families impacted by addiction. With decades of experience in research, direct service, communications and partnership-building, we provide families with personalized support and resources—while mobilizing policymakers, researchers and health care professionals to better address addiction systemically on a national scale.

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