ORIGINAL

Quest Diagnostics

Employer Solutions Proposal

New York State Department of Civil Service

Request for Proposals – Technical Proposal

CLINICAL LABORATORY SERVICES

Prepared Exclusively for

New York State Department of Civil Service

ATTENTION: CLINICAL LABORATORY SERVICES

PROCUREMENT, FLOOR 17

AGENCY BUILDING 1, EMPIRE STATE PLAZA

ALBANY, NEW YORK 12239

SUBMISSION DATE:

FRIDAY, MAY 31, 2019 3:00 pm EST

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SECTION 5:
TECHNICAL REQUIREMENTS

STAFFING REQUIREMENTS: ATTACHMENT 15

1. The Offeror must submit a completed *Staffing Requirements Form* (Attachment 15). This form must include:
    a. The number of staff who will be directly involved in the provision of Project Services as Described in Section 3 of this RFP.
    b. The job title, job description and cumulative years of experience of such staff. Cumulative Years of Experience is defined as the sum of each employee's years of experience in the cited job title. (Example: Three employees share the same job title. Employee 1 has 5 years of experience, Employee 2 has 20 years of experience and Employee 3 has 25 years of experience. Cumulative experience is computed by adding 5 plus 20 plus 25 for a total of 50 years.)

Please see the completed Attachment 15 – ***Staffing Requirements Form***

2019_0522 Hours.xlsx

The total number of staff who will be involved in this contract cannot be completely determined. Historically, collections performed at Quest Diagnostics Patient Service Centers or Preferred collection sites are performed in different locations at different centers. The exact laboratory personnel who will accession and process specimens could vary based on the day and time of specimen arrival to the laboratory. Quest has Route Service Representatives and contracted couriers who pickup specimens. This courier personnel could also vary. Please see the Key Quest Diagnostics Personnel listed in the chart below who manages our Employer Solutions Teams.

Senior Management and Sales	**Jason Severtson,** Vice President **Stacey Blackmon,** Executive Sales Director
Client Services & Customer Support	**Lawrence Guinn,** Director, Customer Operations **Mark Morris,** Manager Key Account Solutions
Collection Services	**Charles Sullivan,** Director Vendor & Network Support, *National Collection Network*
Laboratory Services	**R. H. Barry Sample, Ph.D.,** Senior Director of Science and Technology **Susan Mills,** Director of Laboratory Operations, Norristown, Pennsylvania
Logistics	**Chris Ritter,** Logistics Manager
Billing	**Diana D'Amico,** Supervisor, Client Revenue Services

Dylan Wilson, Quest Select Account Manager, will handle day to day service needs for NYSDCS. Dylan L. Wilson / 10101 Renner Blvd. / Lenexa, Kansas / 66219 / Phone: 913.577.1428 / Email: Dylan.L.Wilson@QuestDiagnostics.com.

The Quest Diagnostics National Client Service Center (NCSC), located in Lenexa, Kansas is also available for day-to-day routine service requests and problem resolution. Client service representatives are responsible for handling incoming inquiries about specimen status, laboratory procedures, drug testing supplies and shipping. The NCSC can also monitor turnaround time and provide process improvement.

OFFEROR NAME: QUEST DIAGNOSTIC CLINICAL LABORATORIES, INC. — QUEST DIAGNOSTICS LABORATORY WEST NORRITON, PENNSYLVANIA

JOB TITLE	JOB DESCRIPTION	CUMULATIVE YEARS OF EXPERIENCE
Forensic Processing Tech	This position is responsible for the routine daily sample processing of the Forensic Toxicology Processing Department. This individual is accountable for all specimen receipt, sorting, data entry and work within the specimen processing department.	331
Forensic Scientist	The Forensic Scientist is responsible for routine and non-routine activities pertaining to lab testing and performs moderately difficult to complex tasks in the area of Forensic Toxicology. The position may work in either the screening or the confirmation area and is responsible for initial and/or confirmation testing of donor specimens.	431
Certifying Scientist	The Certifying Scientist reviews analytical data and chain of custody documentation to ensure accuracy, completeness and defensibility of testing results and reporting documents prior to release of a result report.	399
Management	The management staff is responsible for day-to-day operations of the laboratory and oversee all aspects of the operations. Some of this staff also function in the role of the "Responsible Person" under HHS regulations.	91

FACILITY REQUIREMENTS: ATTACHMENT 16

1. The Offeror must submit a completed Facility Requirement Form (Attachment 16) that identifies the addresses and hours of operation for its public locations within any applicable region identified in Section 3.1 (4) of this RFP.
   Please see Facility Requirements Form (Attachment 16) for of all Patient Service Centers (PSCs) and Preferred Sites in the Quest Diagnostics Collection Site Network located throughout New York State.

   NY Dept of Civil Service-Clinical Labor

   Additionally, using a zip code to search, our state-of-the art collection site locator, **www.questdiagnostics.com** will generate the most up to date list of Patient Service Centers (PSCs) and Preferred Network facilities in the searched area. Via the Collection Site Locator, the collection facility contact information can be viewed and an appointment scheduled.

2. The Offeror must submit a narrative which explains how the Offeror's public facilities are accessible to disabled individuals in accordance with the Americans Disabilities Act as detailed in Section 3 of this RFP.
   Yes, Quest Diagnostics NY State Patient Service Center collection sites do comply with the Americans with Disabilities Act accessibility requirements.

   No Patient Service Center collection site in New York or outside of New York perform laboratory testing. These sites perform specimen collection only. However, all Rapid Response Labs meet New York State and Federal regulations for certification.

   Yes, all equipment is maintained according to manufacturer requirements and Federal regulations.

ATTACHMENT 16

NEW YORK STATE OF OPPORTUNITY. Department of Civil Service

RFP entitled
"CLINICAL LABORATORY SERVICES"
Facility Requirements Form

Instructions: As noted in RFP Section 5.2, enter the address and hours of operation for each public location which the Offeror has within any applicable the region. The counties in each region are set forth in RFP Section 3.1 (4). Please add additional pages as necessary.

Offeror Name: Quest Diagnostics Clinical Laboratories, Inc.

Please see attached list of Quest Diagnostics collection sites to include Patient Service Centers and Preferred Sites listed by county within the Quest Diagnostics network.

In total, how many locations does the Offeror have within the regions listed below? 258

Region	Counties	Address of Each Location	Hours of Operation for Each Location
Western New York	Allegany Cattaraugus Chautauqua Erie Genesee Livingston Monroe Niagara Ontario Orleans Seneca Wayne Wyoming Yates		
Southern Tier	Broome Chemung Chenango Delaware Schuyler Steuben Tioga Tompkins		
Central New York	Cayuga Cortland Fulton Herkimer Madison Montgomery Oneida Onondaga Oswego Otsego Schoharie		

NEW YORK STATE OF OPPORTUNITY | Department of Civil Service

RFP entitled
"CLINICAL LABORATORY SERVICES"
Facility Requirements Form

Capital Region	Albany Columbia Greene Rensselaer Saratoga Schenectady Warren Washington		
Hudson Valley	Dutchess Orange Putnam Rockland Sullivan Ulster Westchester		
New York City	Bronx Kings New York Queens Richmond		
Long Island	Nassau Suffolk		

RFP entitled
"CLINICAL LABORATORY SERVICES"
Facility Requirements Form

North Country	Clinton Essex Franklin Hamilton Jefferson Lewis St. Lawrence		

QUEST DIAGNOSTICS
ADDITIONAL INFORMATION

EXECUTIVE SUMMARY

Quest Diagnostics is the nation's leading provider of diagnostic testing, information and services. Quest Diagnostics provides clinical testing, via its numerous regional laboratories in approximately 30 metropolitan markets across the country, as well as Brazil, Mexico, the United Kingdom and India. With approximately 45,000 company-wide employees, we successfully collect, transport and test over 530,000 specimens each night. Our Employer Solutions division efficiently handles over 41,000 active drug testing accounts and manages the testing and servicing of over eleven (11) million workforce drug screens performed annually within our network of SAMHSA/HHS certified Forensic Toxicology Laboratories.

Quest Diagnostics has the service offerings and test menu to be the single source provider for all your clinical testing and employer screening needs. Our mission is to remain the industry leader by providing the most accurate, timely and cost-effective employment screening services in this industry. Our comprehensive menu of employee screening and health management solutions include the following:

- **Drug Testing** and **National Clinical Testing Services** – Comprehensive, world-class, laboratory-based and rapid testing services, with multiple specimen and processing options available
  Note: The broadest menu of clinical testing services available from any single provider in the industry; Drug testing options include laboratory-based urine, hair and oral fluid drug tests; FDA-listed screening tests for oxycodone and ecstasy; alcohol testing and abstinence monitoring; medical professional panels; steroid testing; point of collection testing (POCT) devices

- **Collection Services** – An unsurpassed national network of certified collectors, over 1,325 Patient Service Centers, 7,500 + Preferred and Third-Party Collection Sites and a network of mobile collectors that deliver high quality collection services that are cost-effective, seamless and convenient
- **Integrated MRO Services** – Fully integrated, state and federally compliant reporting
- **Web Services –** Web Services enable the exchange of XML messages between systems. By empowering our laboratory systems to "talk" with your employer applications, we speed up the exchange of information and thereby the entire drug testing process from order to result
- **Quest Integrated Solutions (QIS)** – Our web-based reporting tool and product suite, that offers the latest technology, provides employee record management and issue resolution and delivers secure, confidential, online drug test results with maximum efficiency
- **Employee Health Management** – Lower benefits cost and improve employee health through the most comprehensive employee wellness programs available
- **OSHA Compliance** – Monitor employee's exposure to potentially hazardous materials with the most advanced testing techniques
- **Accreditations and Certifications** - A network of three (3) U.S. based testing laboratories that are fully accredited and certified by leading United States agencies and organizations, including Substance Abuse and Mental Health Services Administration (SAMHSA), College of American Pathologists Forensic Drug Testing (CAP-FDT) and Clinical Laboratory Improvement Amendments (CLIA), one CAP-FDT laboratory in Brazil, one CAP (clinical) and NABL-certified India-based laboratory, one clinical testing laboratory in Mexico

Additionally, noted key features include the following:

- 6,000+ trained collectors provide nationwide access to 24/7 emergency and scheduled, on-site collections
- 4,000+ company employed (not contracted) couriers and 21 aircraft to manage the logistics for specimen transportation
- Over 1,325 collection facilities within our existing collection network that can process drug screens via an electronic requisition and ordering process called eCCF.
- Over 700 collection sites with Express Results *Online* collection capabilities
- Centralized process and a single, standardized billing database to ensure superior service across our domestic and international enterprises
- A dedicated Client Services Department committed to delivering superior satisfaction for our customers
- Industry leading turn-around-time for reporting urine drug screen results within 24-72 hours from specimen receipt at the testing laboratory
- Quest Diagnostics is certified to utilize Federal **eCCF** for urine tests at its three workforce drug testing laboratories located in Lenexa, KS; Tucker, GA; and West Norriton, PA. We are the largest drug testing provider certified to provide Federal eCCF. Quest Diagnostics has been investing in and providing eCCF (formerly known as eReq) to non-regulated employers for nearly a decade, and we launched eCCF for regulated, U.S. Department of Transportation (DOT) drug tests in January, 2017. eCCF is currently available for DOT urine, non-DOT urine, **Express Results™ *Online***, oral fluid, and hair drug tests from Quest Diagnostics. The completion of the laboratory approval process enables us to allow the ordering, collections, testing, and reporting of regulated eCCFs across our nationwide network of laboratories, Patient Service Centers, Preferred 3rd Party and 3rd Party collection sites. Continue to read **our blog** and follow us on **LinkedIn** and **Facebook** to receive information about eCCF
- Our commitment to continuous improvement, cost control and error free results reporting via our Six Sigma processes and quality control procedures
  Note: By embracing the principles of Six Sigma Quality, we can implement process improvement initiatives that will also help us to achieve virtual perfection in areas such as specimen collection, tracking and handling, billing accuracy and customer service performance
- An annual report published for the government, industry and media known as the Drug Testing Index, offers a summary of results compiled from workforce drug tests performed by Quest Diagnostics each year
- Quest Diagnostics continues to bring advances to the drug testing industry and to our customers by innovating and rapidly deploying new tests and technologies, committing to our Six Sigma initiatives, and continuing to invest in the development of our highly qualified staff, as well as the improvement of information technology products

COLLECTION SERVICES

The National Collection Network

Quest Diagnostics owns and manages 3,000 Patient Service Centers (PSCs), strategically located throughout the United States, Mexico, UK and India -1,330 of which provide collection services for substance of abuse testing services. Our Preferred and Third-Party Collection Network includes an additional 8,600+ collection sites in the United States that provide coverage in geographies where a Quest Diagnostics Patient Service Center is unavailable.

Our collection network can collect all types of specimens for testing:

- phlebotomy collections (blood draws)
- urine collections for drugs of abuse testing
- instant urine collections for drugs of abuse testing
- hair collections for drugs of abuse testing
- breath alcohol testing
- on-site (at your workplace) collection services

Using a zip code to search, our state-of-the art collection site locator, **www.questdiagnostics.com** will generate a list of Patient Service Centers (PSCs) and Preferred Network facilities in the searched area. Locate and view the collection facility contact information or schedule an appointment online via the Collection Site Locator.

For Quest Diagnostics to provide the best possible service to our customers, we require that our National Collection Network comply with specific collection guidelines, derived from Federal Government regulations - DOT 49 CFR part 40. Collectors are specially trained to ensure professional and proper handling of donors and specimens. Quest Diagnostics collectors are sensitive to providing individual privacy and complete ongoing training in forensic specimen collection, billing, quality, safety, problem solving, emergency procedures, ethics, and compliance.

Observed Collections

Observed collections are available at Quest Diagnostics Preferred and Third-Party collection facilities upon request. Observed collections are also available at some of our Quest Patient Service Center (PSC) locations; however, these observed collections at PSCs are performed only in the event that there is an issue during specimen collection (i.e. specimen adulteration, substitution, temperature out of range, etc.). Observed collections at Quest Diagnostics PSCs will not be performed upon the request of a Medical Review Officer or for Return to Duty situations. All observed collections must be scheduled by phone via the Quest Diagnostics National Client Service Center or directly with the collection facility.

Appointment scheduling is required, and an additional fee might apply for an observed collection in one of our Patient Service Centers, Preferred Sites or Third-Party collection facilities.

Hours of Operation

Patient Service Center (PSC) and Preferred Sites hours of operation vary depending on client needs, but generally include business hours from 8:00 a.m. until 5:00 p.m. Preferred, Third-party collection sites and mobile collectors provide additional access to after-hours and emergency specimen collections.

The Quest Diagnostics collection network will provide collection services to your donors/applicants on a walk-in basis. Wait time at each collection facility may vary depending upon the number of individuals waiting and/or may have scheduled a collection.

Automated Appointment Scheduling

As a convenience, we also offer the ability for donors to schedule an appointment online or by phone, to which donors/applicants will have 24-hour access.

- Call 1-888-277-8772, 24 hours per day via voice interactive response
- Online – www.questdiagnostics.com/appointment

When using the ***Automated Appointment Scheduling*** options, the donor/applicant must bring to the collection facility, the following items.

- A photo ID
- The paper custody-and-control form (CCF) that was provided by the Designated Employer Representative (DER) or an authorization form for an electronic (eCCF) collection.

Collection Management Department

Quest Diagnostics dedicates an entire department to the management of the collection network. Our collection site quality control program monitors all 10,000+ sites on a regular basis. All Quest Diagnostics owned, and affiliated collection sites utilize an error correction training program that is reviewed weekly.

This program identifies errors committed by specific collectors and requires that refresher training be performed and documented. Sites that continue to commit more than two errors per month over a three-month period are eliminated from our database. Our staff will also retrain any site with more than two erroneous collections per month.

Auditing Improves the Collection Process

As part of our quality assurance program for collection sites, we conduct different types of audits at several key collection points. Our ***Mystery Shopper*** program features a professional who has a collection completed at a Patient Service Center or at a Preferred Collection Site. The highly trained professional rates each step in the collection process, including the donor experience, and provides feedback back to the location. We typically complete more than 1200 mystery shopper events each year.

Each month we dispatch a collector for an ***Emergency event*** where one of our auditors poses as the donor. The collector must complete a urine drug screen and a Breath Alcohol collection on the donor, who rates the quality of the process and reports back to the client. A key transportation client recently stated that this audit program is "the best in the industry." This same client was recently audited by a Federal regulatory board who gave the program high marks.

On a quarterly basis we also rate the quality of our ***On-Site collection events***. An auditor will arrive unannounced at a client's event to evaluate the performance of the collector assigned to the event. The event is scored, and the results are used to coach that collector. The feedback collected at these events allows us to continually improve our collection services, which helps to create a better service for all our clients. And the data shows that these audits are working. We've seen incrementally higher scores for our collection services on each of our last three customer satisfaction surveys.

LABORATORY SERVICES

Quest Diagnostics Forensic Drug Testing Laboratories

Quest Diagnostics Employer Solutions conducts business through its headquarters in Secaucus, New Jersey, and in its administrative offices in Collegeville, Pennsylvania and Lenexa, Kansas. Services are also provided through Quest's Forensic Toxicology Laboratory Network, Patient Service Centers (PSCs) and other selected locations in and outside of the United States. **Quest Diagnostics operates three Forensic Toxicology laboratories for substance abuse testing in the United States at the addresses listed below.**

- Quest Diagnostics
  10101 Renner Boulevard / Lenexa, Kansas 66219
- Quest Diagnostics
  400 Egypt Road / Norristown, Pennsylvania 19403
- Quest Diagnostics
  1777 Montreal Circle / Tucker, Georgia 30084

Each of Quest Diagnostics' Forensic Toxicology Laboratories is certified by the Department of Health and Human Services/Substance Abuse and Mental Health Services Administration (HHS/SAMHSA) to perform urine drug testing under the Federal program. The three (3) SAMHSA certified laboratories are compliant with the SAMHSA guidelines as detailed in the Federal Register 73 (228): 71858-71907 (11-25-2008) and the DOT's 49 CFR Part 40 rules, detailed in Federal Register 65 (244): 79462-79579 (12-19-2000), and any subsequent revisions. The Department of Transportation (DOT), Nuclear Regulatory Commission (NRC), Federal Railroad Administration (FRA), Pipeline and Hazardous Materials Safety Administration (PHMSA) and the Federal Motor Carrier Safety Administration (FMCSA) all require this certification.

Each laboratory is accredited by the College of American Pathologists Forensic Drug Testing (CAP-FDT) program and licensed, as applicable, by the state where the laboratory is located. Quest Diagnostics drug-testing procedures and laboratories are also fully certified and accredited as required by federal and state agencies.

Laboratory Hours of Operation

Quest Diagnostics Forensic laboratories are staffed on a 24-7 basis and are operational for three full eight-hour shifts, each day for 6 days per week. The laboratories do not process specimens on Sunday. The laboratories are closed for the major holidays (Memorial Day, July 4th, Labor Day, Thanksgiving, Christmas and New Year's Day).

All three Quest Diagnostics Forensic Toxicology laboratories operate on a single, standard operating system that is linked to a separate billing system. This proprietary operating system allows Quest Diagnostics to provide standard urine drug testing services, regardless of the laboratory that receives the specimen and reports the test result.

This capability affords Quest Diagnostics the best disaster recovery program in the industry. If a disaster were to strike a single laboratory, Quest Diagnostics would immediately notify the client of the problem and review contingency plans for temporarily transitioning the workload to another laboratory. Moving the workload from one Quest Diagnostics laboratory to another provides uninterrupted service. Since there is one common IT platform and a common database, we are prepared to handle these events with minimal disruption to our clients.

Chain of Custody

"Chain of Custody", as it pertains to the substance abuse testing industry, refers to the procedures and subsequent documentation by which laboratories handle specimens from collection through testing and beyond. These procedures exist to protect both the employer and the employee and to ensure that tests are performed on un-tampered specimens. Quest Diagnostics goes to great lengths to maintain reliable chain of custody procedures. Custody and Control Forms (CCFs) will be documented and Chain of Custody (COC) procedures for DOT tests will be compliant with DOT rules. Non-DOT tests will be handled and processed in a similar fashion and will be subject to specimen validity testing consistent with DOT procedures.

Laboratory Equipment

A variety of instruments and equipment are used to support the performance of analytical procedures of the Quest Diagnostics testing laboratories. All instruments and equipment are properly operated, maintained, serviced, and monitored to ensure that malfunctions of these instruments and equipment do not adversely affect the analytical results. The inspection team reviews the procedures for instrument/equipment operations, maintenance and monitoring records to ensure that these devices are properly used.

Quest Diagnostics maintains physical assets, including buildings, vehicles, computers, testing and other production equipment in a manner appropriate to the collection, handling, preparation, storage and testing of specimens and generation of test reports. The equipment is installed following manufacturer's specifications. Equipment function is validated after installation and after re-installation; it is moved to another location. Function checks are the evaluation of critical operating characteristics, such as electrical levels, temperature, measurement calibration, etc. For each type of equipment, written procedures specify the performance of function checks at appropriate intervals. Results of function checks are documented.

Each laboratory also has written procedures for the preventive maintenance (PM) of each instrument, device or test system. The PM program is divided into two parts, scheduled, routine maintenance performed to prevent breakdowns or malfunctions to prolong the life of the instrument and to maintain optimum operating characteristics and unscheduled repair work.

Current records of service, repair, PM, and function checks for each instrument are maintained at the instrument. Tolerance limits are established for each function, and the acceptable range is readily available at the instrument. PM records and function check documentation are routinely reviewed by a supervisor or supervisor designee.

Laboratory Security

Quest Diagnostics requires that the security of all specimens and aliquots be maintained to account for custody at all times and ensure that specimens are not contaminated or adulterated in any way. The Quest Diagnostics security program has been designed to protect the integrity of the facility, the specimens in storage and the documents and data pertaining to the testing program. The Laboratory Director is responsible for all aspects of security in the drug testing laboratory, including building, specimen and record security. The Laboratory Security Program includes the following:

- Controlled access to all areas and limited access to storage areas, including specimen receiving and the long-term document file room
- Electronic access and alarm systems on all access doors to laboratories and reporting areas
- Personal card-key access for electronic locks that limit access to designated areas and to authorized time periods
- A requirement for badges and escorted access for all visitors
- Secured access to all computer systems

Laboratory policy requires that specimens in their original containers remain in Sample Processing and/or designated secured storage rooms. Aliquots must be in the custody of a laboratory technologist or in a designated, secured storage area. All documents, records and computers are also maintained in limited or controlled access areas. The building is secured and monitored by a computerized system which provides for controlled access, intrusion detection and user alarms. The system is actively monitored by an on-site Security Officer on a "24/7" basis.

Access to all areas is limited to individuals listed on the area's access roster or to those escorted by authorized individuals. Only those individuals authorized by the Laboratory Director have access to secured areas. All individuals entering or leaving secured areas must log in and out. Employees are assigned individual electronic access cards that control access for specified areas and at specified times.

Whenever individuals leave employment, their access cards are deactivated and returned. Wherever access codes or combination locks are utilized, they are changed routinely and updated whenever there are changes in personnel. Access codes are signed by the Laboratory Director. Computer generated access logs are monitored by the Security Officer, and all security systems are audited regularly.

Quest Diagnostics computer servers are in secure, controlled access areas. Access to the Laboratory's computer system is also controlled. Each staff member is assigned a unique username and password to access the Laboratory's computer network. Passwords must be changed on a periodic basis. Access to information is defined by user class (similar types of users are limited to information appropriate for their job duties) as determined by the Laboratory Director. The security systems are routinely audited by the Laboratory's Quality Assurance Officer and by external inspectors.

Facilities and Data Protection

Quest Diagnostics utilizes the following security measures in order to protect our facilities and data.

- Using access control devices, such as card keys, computerized access control, and/or receptionist verification of identification badges for all employees
- Requiring all facilities visitors to check-in at the reception desk and to obtain a visitor badge
- Utilizing enhanced security measures at all data centers, including limiting access to specially authorized employees (controlled by computerized access control), environmental security controls, and limiting visitors to pre-cleared individuals who must be escorted at all times
- Maintaining secured areas for storage of materials containing confidential information
- Implementing other appropriate security measures including security patrols and cameras
- Maintaining adequate disaster recovery and business continuity plans for critical functions
- Transmitting confidential data through web sites, where personal information is requested, is performed through the use of encryption protocols
- Encrypting confidential data on laptops and removable media
- Requiring appropriate disposal of all documents and electronic media in a secure manner according to our company policies

Quality Assurance and Laboratory Proficiency

Quest Diagnostics participates in a Quality Assurance Program that encompasses all aspects of the drug testing process including, but not limited to, specimen acquisition, chain of custody security and reporting of results, initial and confirmatory testing and validation of analytical procedures. Quality Assurance procedures have been designed, implemented and reviewed to outline activities and audits, monitor the conduct of each step of the process of testing for drugs as well as monitoring the performance of personnel, equipment, and instruments against the standards set by the Quality Assurance Committee and certifying agencies.

The Quality Assurance Program for testing includes participation in both internal and external quality control programs, calibration of instruments and measuring devices, daily instrument evaluation, review of compliance with standard operating procedures and documentation of the skills and training of technical personnel. All of Quest Diagnostics SAMHSA certified laboratories are inspected on a bi-annual basis as well as are subject to audits by independent, third party consultants who work on behalf of our customers.

Quest Diagnostics is also frequently audited by state regulatory authorities such as the National Laboratory Certification Program (NLCP), the Department of Health and Human Services (DHHS) and the College of American Pathologists (CAP), as well, as applicable, the Commonwealth of Pennsylvania and New York State Department of Health. All inspections that occur under the National Laboratory Certification Program (NLCP) are conducted on behalf of the Substance Abuse and Mental Health Services Administration (SAMHSA).

In addition, Quest Diagnostics requires its laboratories to run "blind" Quality Control specimens using the methods applied to routine unknown specimens. A Certifying Scientist reviews all blind Quality Control results before a run is reported. We require a minimum of one blind specimen for each screening or confirmation batch. At least 20% of the screening blind Quality Control specimens are positive for one or more of the analyzed drugs. Screening blinds are evaluated qualitatively. GC/MS blinds are evaluated quantitatively. Quest Diagnostics standard method also withstands blind specimen challenges submitted by NRC-regulated agents.

Laboratory inspection reports and proficiency testing results are considered confidential and proprietary information and are not released as a part of the standard RFP process. Laboratory proficiency data may be shared upon award, during laboratory inspection. Quest Diagnostics drug testing laboratories appear on the list of federally-certified laboratories which is published monthly in the Federal Register. None of our SAMHSA-certified laboratories has ever had their certification suspended or revoked.

Laboratory Auditing

Our client shall have the right to audit the Contractor not more than annually and to enter the premises for the purpose of conducting such audit upon thirty (30) day's prior written notice. Such written notice must also contain the topics and expected agenda to be included in such audit. Our client shall have reasonable access to Contractor's facility, documents, papers or records relating to this Agreement and any Confidential Information, at the discretion of the Contractor.

The scope of the audit and the audit schedule must be agreed upon by the parties in advance of the audit. Such audit shall be performed during normal business hours, not to interrupt business operations, not to exceed more than three (3) business days while onsite at the Contractor's facility, will not have any access or present risk to production data, and is subject to Contractor's customary IT Security Audit Standards. Our client will not have the capability of installing any software within the Contractors IT environment in order to conduct such audits.

The Contractor shall reasonably cooperate with our client during such audit. Our client agrees that such audit will be at its sole cost and expense. Our client may conduct this audit with its own employees or with an agreed upon third party auditor retained by them. Our client or its representatives may be required to sign a confidentiality agreement prior to any audit. Any documents or records shared during such audit will be collected and deemed Contractor confidential information.

Laboratory Certification

There are two national programs that certify or accredit laboratories - the National Laboratory Certification Program (NLCP) which is administered by the Department of Health and Human Services/Substance Abuse and Mental Health Services Administration (HHS/SAMHSA) and the College of American Pathologists Forensic Drug Testing (FDT) accreditation program. Both programs use proficiency testing and on-site inspections to assess laboratory compliance with their program requirements.

Certification under the NLCP is required for testing of Federal employees or for Federally-mandated testing of private sector employees (e.g. DOT-mandated testing of drivers and pilots). Many States also require certification under one of these programs for a laboratory to perform employment-related drug tests. In New York State, certification by the Department of Health is also required. The three laboratories in Quest Diagnostics Employer Solutions Division that perform employment-related drug tests are certified under both the NLCP and FDT programs.

These laboratories also maintain all applicable State licensing and certification including New York (Department of Health) and Florida (Agency for Health Care Administration). The specific licensure held in each laboratory is dependent on location and testing performed.

Please see the most current Quest Diagnostics laboratory licensure listings and the most current Federal Register list of SAMHSA-certified laboratories for forensic drug testing services on page 29 of this response.

LAB CERTS_05.2019.doc

Federal Register May 2019.pdf

THE DRUG TESTING PROCESS

Chain of Custody

Quest Diagnostics goes to great lengths to maintain reliable Chain of Custody (COC), documenting specimen possession from the time of collection, to a specimen's lab receipt, through test completion, to storage, and continuing until final disposition of the specimen. These COC procedures exist to protect both the employer and the employee, maintain control and accountability of Forensic Toxicology specimens and to ensure that testing is performed on un-tampered specimens. Quest Diagnostics will provide a unique Custody and Control Form (CCF), which serves as a record of specimen transfer, from initial collection to arrival at the appropriate Quest Diagnostics testing facility, and tamper-evident bag to preserve specimen integrity.

The Specimen Collection Process

In order for Quest Diagnostics to provide the best possible service to our customers, we require that our National Collection Network comply with the following guidelines. These guidelines were derived from Federal Government regulations that require Quest Diagnostics to collect the specimen according to the DOT 49 CFR part 40. The collector will follow an established protocol to ensure that your employee/donor specimens are not adulterated or diluted during the collection procedure. The specimen collection will follow strict chain of custody and security procedures and will be conducted following procedures that allow for individual privacy.

Upon completion of specimen collection

The collected specimen will be transported to the closest SAMHSA approved testing laboratory for analysis. Collected specimens will be transported to the laboratory for analysis. The laboratory's testing is CAP-FDT accredited for performing hair, oral fluid, and urine forensic (workforce) drug testing and utilizes FDA listed screening tests for all five standard illicit drug groups.

The Drug Testing Process

Specimens undergo a two-tiered testing process - an initial screen on one portion of the specimen, followed by a confirmatory test on a second portion of the specimen. The initial test is designed to separate negative specimens from further testing. Specimens requiring additional confirmation testing using GC-MS (/MS) and/or LC-MS (/MS) are generally released within 48 -72 hours from the time of specimen receipt.

Urine Drug Testing Methodology

The following standards are applied to the analysis of urine for workforce drug tests.

- *Step 1. Screening (initial) Test: A high-sensitivity Enzyme Immunoassay (EIA) screens for the presence of commonly abused drugs. At this stage, test results equal to or greater than a calibrated immunoassay cutoff concentration identify presumptively-positive specimens. Each batch contains both negative and positive quality control samples along with one blind quality control sample that is inserted into the batch in a random position.*
- *Step 2. Confirmatory Test: Confirmatory drug testing will be performed by either Gas Chromatography/Mass Spectrometry (GC-MS) or Liquid Chromatography/Mass Spectrometry (LC-MS) or any other technique recognized by the DHHS/SAMHSA.*
- *Specimen Validity Test: Quest Diagnostics also performs, at a minimum, tests for pH, creatinine, and specific gravity (when indicated).*

Specimen Processing Description

Specimen Receipt - The laboratory acknowledges receipt of the specimen(s), verifies ID, and verifies that there is no evidence of tampering by examining the tamper-evident bag and specimen security seal. The external Custody and Control Form (CCF) is completed and the internal laboratory Chain of Custody (COC) is initiated.

Order Entry/Log-In - Client account number, specimen identification number, donor identification and testing information is logged into the specimen tracking computer system. A unique accession number is assigned to the specimen and an accession barcode label is affixed to the specimen container and accompanying CCF.

Aliquot for Urine Screening Test - The specimen container is opened (breaking the seal) and a small portion Of the sample is removed for the initial screening tests. Aliquots may be taken by manual or automated (CV 2000) methods. The aliquot is transferred to the testing laboratory and the original specimen is placed in a temporary secured storage. All specimen and subsequent aliquot handling are carefully documented via an internal Chain of Custody. Additional Specimen Receiving, Accession and Processing information has been provided below.

- Upon receipt of a courier lab pack, a Specimen Processor logs the courier type, tracking number, and number of samples in the pack into the laboratory's information management system (LIMS).
- The pack is transferred to another sample processor who opens one kit box at a time and receives the enclosed sample.
- The processor verifies the ID number on the bottle seal against the form and checks the accompanying paperwork for errors or omissions, possible tampering, or other unusual conditions. Discrepancies are documented on a Discrepancy Checklist which is attached to the chain of custody form.
- Once all boxes in a given shipment have been opened and reviewed, the samples and forms are sorted by type of testing (i.e., regulated or non-regulated).
- Specimens are transferred to a second Specimen Processor who then enters the client account number (which determines the drugs to be tested and the cutoff levels) and scans the bar-coded sample ID number and bottle into the LIMS System.
- The LIMS System assigns a unique accession number and prints out bar code labels that are immediately attached to the bottle, bottle cap, chain of custody form and any related paper work, and the aliquot tube.
- The primary bottle is opened, and an aliquot is poured and placed in the batch rack. The bottle is placed in a batch box. The Specimen Processor observes for indications of possible adulteration, such as unusual color, smell, or other characteristics (e.g., excessive foaming or bubbling).
- Aliquots are processed in batches of up to 71. As each batch is completed, it is placed in the testing laboratory pass-through secured storage locker and the bottles are placed in the Specimen Processing Temporary Storage Area.
- The Custody and Control Forms are ultimately sent to Data Management/Reporting so that collector and demographic information (e.g., date of collection, SSN/employee ID, collector name and telephone) can be entered into the LIMS System. All changes of custody are documented on the appropriate chain of custody forms.

Initial Test Description

A high-sensitivity Enzyme Immunoassay (EIA) screens for the presence of commonly abused drugs. At this stage, test results equal to or greater than a calibrated immunoassay cutoff concentration identify presumptively-positive specimens. Each batch contains both negative and positive quality control samples along with one blind quality control sample that is inserted into the batch in a random position.

Confirmation Test Description - Gas Chromatography-Mass Spectrometry (GC-MS)

Quest Diagnostics performs confirmation testing for drugs of abuse by gas chromatography-mass spectrometry or liquid chromatography-mass spectrometry/mass spectrometry (LC-MS/MS) or any other technique recognized by DHHS/SAMHSA. The concentration of drug or drug metabolite in each donor specimen is determined by comparison of the response of the specimen to the response of calibrators of known concentration.

If a donor specimen has a concentration of drug that is less than the client specific cutoff, the specimen is determined to be negative for the confirmation test. If a donor specimen has a concentration of drug that is greater than or equal to the client specific cutoff, the specimen is determined to be positive for the specific test. Each batch contains both negative and positive quality control samples along with one blind quality control sample that is inserted into the batch in a random position.

If required, confirmation testing for specimen validity is performed by the same or, if available, a second definitive method that can be utilized to identify specimen as adulterated, substituted or invalid. Each confirmation test is performed on a second aliquot that is obtained from the original specimen container and all confirmation batches contain appropriate quality control samples to verify the performance of the procedure.

Liquid Chromatography with MS/MS technology (LC-MS/MS)

Until recently, all confirmation methods were performed using gas chromatography-mass spectrometry (GC-MS), as required by HHS for the regulated drugs of abuse. This became the default standard for all drugs of abuse confirmation whether they were regulated or non-regulated. The changes to the regulations that occurred in October 2010, allow us to use liquid chromatography with MS/MS technology (LC-MS/MS) as required and where permitted. A potential advantage of liquid chromatography with MS/MS technology (LC-MS/MS) improved sensitivity and linearity. This technology can be used for some of the non-regulated drug classes in some of our labs.

Reporting

1. Results will be reported out electronically within 24-72 hours (24 hours for a negative result on the initial test performed in the laboratory-POCT test results are reported within one hour of completion - and an additional 48-72 for a positive result) from receipt at the laboratory.
    - Results may be reported over the phone (with proper authentication), a secure fax line or on-line.
    - If an MRO is required to review results, the testing laboratory will forward results directly to that MRO, rather than to the client.
2. You will be billed on a monthly basis. Charges incurred will directly reflect services rendered to your organization.

URINE DRUG TESTING SERVICES

Urine testing is one of the most common screening methods. It is an accurate and reliable way to detect casual drug use that occurred within the past 72 hours. Quest Diagnostics performs urine testing at all three Substance Abuse and Mental Health Services Administration (SAMHSA)-certified laboratories and panels can be customized based on a specific need.

DOT Drugs and Cutoffs

Drug	Immunoassay screen cutoff level* ng/mL	GC/MS confirmation cutoff level ng/mL
Amphetamines	500	
Amphetamine		250
Methamphetamine		250
MDMA Analogues	500	
MDMA (Ecstasy)		250
MDA		250
Cocaine metabolites (Benzoylecgonine)	150	100
Marijuana metabolites (THCA)	50	15
Opiates	2000	
Codeine		2000
Morphine		2000
Semi-Synthetic Opiates (Hydrocodone/Hydromorphone)	300	
Hydrocodone		100
Hydromorphone		100
Oxycodones (Oxycodone/Oxymorphone)	100	
Oxycodone		100
Oxymorphone		100
6-Acetylmorphine	10	10
Phencyclidine	25	25

- For grouped analytes (i.e., two or more analytes that are in the same drug class and have the same initial test cutoff):
  Immunoassay: The test must be calibrated with one analyte from the group identified as the target analyte. The cross-reactivity of the immunoassay to the other analyte(s) within the group must be 80 percent or greater; if not, separate immunoassays must be used for the analytes within the group.
  Alternate technology: Either one analyte or all analytes from the group must be used for calibration, depending on the technology. At least one analyte within the group must have a concentration equal to or greater than the initial test cutoff or, alternatively, the sum of the analytes present (i.e., equal to or greater than the laboratory's validated limit of quantification) must be equal to or greater than the initial test cutoff.
- An immunoassay must be calibrated with the target analyte, D-9-tetrahydrocannabinol-9-carboxylic acid (THCA).
- *Alternate technology (THCA and Benzoylecgonine):* When using an alternate technology initial test for the specific target of THCA and Benzoylecgonine, the laboratory must use the same cutoff for the initial and confirmatory tests (i.e., 15 ng/mL for THCA and 100ng/mL for Benzoylecgonine).
- Methylenedioxymethamphetamine (MDMA).
- Methylenedioxyamphetamine (MDA).

Specimen Validity Testing

Quest Diagnostics performs specimen validity testing to determine if a urine specimen is dilute or has been adulterated or substituted. A dilute specimen is a urine specimen with creatinine and specific gravity values that are lower than expected but are still within the physiologically producible ranges of human urine.
A substituted specimen is a urine specimen with creatinine and specific gravity values that are so diminished or so divergent that they are not consistent with normal human urine.

An adulterated specimen is a urine specimen containing a substance that is not a normal constituent or containing an endogenous substance at a concentration that is not a normal physiological concentration. Adulterants detected in urine specimens include: acids, bases, oxidants – such as, nitrite, chromium (VI), and halogens – and glutaraldehyde. Candidates may either ingest these foreign substances, sometimes promoted as cleansing agents, or add them to urine specimens with the goal of preventing drug use detection.

Adulterant Type	Effect on Drug Test
Acid Lye Ammonia Vinegar	Affect the pH level of urine, which may interfere with initial screening test result.
Bleach	May interfere with initial screening test results.
Urine substitutes Lemonade Sports drinks Soft drinks Water	Candidates may attempt to substitute these substances for their urine samples. Alternatively, they may drink a **Household products** large quantity of these fluids to dilute their urine.
Chemical additives Glutaraldehyde (Urin-Aid)	Chemical additives may prevent a standard drug test from detecting drug use. Glutaraldehyde may interfere with initial screening test.
Nitrite (Klear, Whizzies), Chromates - (Pyridine, Urine Luck, Instant ADD-IT-ive)	Nitrite and chromate may negate initial and/or confirmatory tests for marijuana, morphine and heroin use. The effect depends on both the concentration added to the urine sample and length of time the product has been in the urine.
Prescription Drugs Non-steroidal anti-inflammatory drugs, such as Tolectin®	These drugs may interfere with the initial screening test. When this occurs, the specimen is automatically tested using an alternate screening methodology for the five standard drug classes - Amphetamines, Cocaine, THC (50), Opiates (2,000) and Phencyclidine.

Quest Diagnostics' *TestSure*™ offering is a screening test for commonly used adulterants. If you request *TestSure™*, which is available in all Quest Diagnostics laboratories, every specimen will be screened for the compounds listed in the following tables. If we identify adulterants, we can confirm their presence using state of-the-art secondary testing methods prior to reporting the results.

Adulterant	Detection level
Nitrite	>500 µg/mL
Creatinine	< 20 mg/dL
pH level	(<4) or (>10)
Specific gravity when indicated	(<1.003)
Alternate screening options when indicated:	
Chromates	
Acids, bases	
Halogens	
Oxidizing adulterants	
Glutaraldehyde	

Some additional laboratory-based urine testing descriptions include the following:

- **Healthcare Professional Panel (HPP)/Medical Professional Panel (MedPro) -** Tests for a variety of prescribed drugs (a wide variety of narcotics, stimulants, sedatives and antidepressants; available to professionals and other workers in the healthcare industry) that currently pass undetected.
- **Steroid and Athletic Drug Testing** - Specifically designed to screen athletes for performance enhancing agents, including anabolic steroids
- **Ethylglucuronide - EtG (Alcohol) Testing -** Alcohol use is detectable via an EtG test for up to 80 hours. Confirmatory testing for EtG also includes ethylsulfate (EtS) which is detectable for 24 hours or more after ethanol ingestion.

CLINICAL TESTING SERVICES

Via a highly integrated operations model, Quest Diagnostics operates a nationwide clinical services network of laboratories located in metropolitan markets across the United States. Currently 98% of our regional laboratories perform the same test methods, and therefore are capable of absorbing work transferred from another laboratory that may become disabled. By end of Q4 2018, the remaining two laboratory facilities [Pittsburgh, Pennsylvania and Teterboro, New Jersey (servicing New York and New Jersey)] will become standardized on our national platform. Specimens will be re-directed to the closest laboratory facility upon standardization of the laboratories.

Quest Diagnostics is the only laboratory company with full bi-coastal esoteric testing capabilities. Many of our clients derive significant benefits from the rapid, moderate/high reference testing services available at our facilities in San Juan Capistrano, California and Chantilly, Virginia. Quest Diagnostics has Laboratories in India and Mexico that perform Clinical testing services.

Hours of Operation
Quest Diagnostics laboratories operate 24 hours a day, 7 days a week.

Laboratory Licenses & Accreditation
Quest Diagnostics clinical testing laboratories maintain fully accredited and licensed facilities in line with all applicable federal and state statutes. All of our main regional laboratories are accredited by the College of American Pathologists (CAP) and meet Clinical Laboratory Improvement Amendments (CLIA) and state criteria.

Laboratory Personnel Qualifications
Quest Diagnostics meets all applicable federal, state and local regulatory requirements for all personnel engaged in the pre-analytic, analytic and post analytic phases of testing. Quest Diagnostics has also established and maintains personnel policies and procedures to ensure that all employees have the appropriate qualifications and training required to perform their duties. Before employees handle or test patient specimens, Quest Diagnostics ensures that all personnel have the required education, experience and documented training appropriate for the type and complexity of services performed.

Each Quest Diagnostics facility maintains procedures to ensure that personnel records are complete and current as well as the necessary documents to support each employee's qualifications. All Quest Diagnostics phlebotomists are required to complete ongoing training in forensic specimen collection, billing, quality, safety, problem solving, emergency procedures, ethics, and compliance.

All employees are provided with extensive training and are required to complete annual training that challenges them to strive for superior customer service through innovation and cooperation. Each department is responsible for maintaining a current knowledge of its industry by attending trade shows, seminars and department training/meetings.

Members of various production departments are held accountable for achieving a predetermined level of performance. Such criterion is held in terms of turnaround time, accuracy, completeness, customer satisfaction, etc. All Quest Diagnostics personnel undergo performance reviews annually. This process has ensured that our employees and associates fully understand the objectives that are most important to our clients.

Laboratory Security

Quest Diagnostics' testing laboratories are secure at all times to deter tampering of specimens and records. All Quest Diagnostics' laboratories are secured from all unauthorized personnel at all times. To protect testing areas, specimens, records or result reporting, strict security procedures and a computerized system deny access to unauthorized personnel. All unauthorized persons entering secured areas of the testing laboratories must have prior authorization by the Laboratory Director or his designate.

Non-laboratory personnel and visitors, including janitors and service personnel, must sign in and out in the logbook and must be escorted at all times by an authorized employee. Cameras and/or videotape equipment are not allowed in the laboratory. Security at the Laboratory includes: Facility Security; Specimen and Sample Security; and Record Security.

Supplies

Quest Diagnostics will provide supplies necessary for the proper collection, processing, handling and transport of specimens to be tested by Quest Diagnostics. Such supplies include but are not limited to specimen collection supplies, requisition forms, specimen transport containers, and specimen bags.

Laboratory Test Directory which consists of specimen collection instructions, test codes, reference ranges, and specimen requirements can be accessed on-line at **www.QuestDiagnostics.com**.

Please note that Quest Diagnostics will only provide those supplies that are used for the purposes stated above and in quantities reasonably related to the number of specimens Quest Diagnostics receives so that Quest Diagnostics and the client will be in compliance with policies established by federal and state agencies.

Courier Network

Quest Diagnostics employs a total courier force of over 4,000 employees. On occasion under non-routine circumstances, our local business units may utilize the services of a contract courier; however, all routine courier pick-ups are handled by our own employees. Quest Diagnostics will work with each requesting client to determine the best pickup/delivery schedule to fit with your needs and to optimize the testing schedule at the laboratory. Since we have multiple couriers in most areas, we try to be flexible in our courier schedules.

Specimen Handling and Transportation

Quest Diagnostics Logistics Department continually develops and manages a comprehensive transportation strategy integrating national ground and air operations to provide innovative technologies that enable Quest Diagnostics to maintain its industry leadership position in service delivery and customer satisfaction. This mission includes robust backup transportation contingency plans for each of our business units.

The courier matches each specimen with a manifest to help ensure specimens collected match with specimens submitted. These specimens are recorded by temperature and type.
The temperatures include room temperature, refrigerated, and frozen. Specimens are maintained at the general storage temperatures used at the time of submission.

We make every effort to minimize the handling of specimens in the transport process. Once specimens are bagged, they are not opened until the time of accessioning. Remote hubs may be used to consolidate packages for shipment into a central facility.

Test Options and Services

Quest Diagnostics offers a variety of diagnostic laboratory testing services to healthcare professionals, consumers, employers, and government agencies. Each service meets a unique need and each is accessed in a different way. Whether it's a routine lab test such as a CBC, or one of the most technologically advanced tests for detecting genetic deletions and mutations, such as the Spectral Karyotyping test, Quest Diagnostics provides the medical community with the most comprehensive laboratory testing menu available.

Through the combined resources of our regional laboratory facilities, we provide rapid answers to difficult medical questions. In addition, patients benefit from the convenience of accessing the nation's largest network of specimen collection sites with Patient Service Centers located throughout the U.S.

Quest Diagnostics National Clinical Testing Services program offerings include the following:

- Medical and Scientific Focus Areas
    - Anatomic Pathology
    - Gene Based Testing
- Disease State and Disorder Testing
    - Genetics/Heritable Diseases
    - Oncologic and Hematologic Disorders
    - Cardiovascular Disease
    - Endocrine System Disorders
    - Infectious Diseases
    - Toxicology

Referral Testing

With the consolidated capabilities of our regional laboratories and the additional esoteric capabilities of the Nichols Institute, Quest Diagnostics has the largest menu of in-house testing available in the industry and we are dedicated to servicing the healthcare needs of our customers in the most timely, efficient manner possible. We provide the broadest menu of testing available from any single provider; greater than 99% of the work submitted to Quest Diagnostics is tested in-house.

If we experience an internal problem with an assay, we attempt to redirect the testing to another Quest Diagnostics facility, which would not impact test cost. In the very rare case that Nichols Institute is unable to provide the assay, we offer our customers a choice of solutions. In some cases, there is no other laboratory providing a comparable assay. We would then ask our customer if they would like to cancel the testing, or have us bank the specimen for future testing.

If available, we would recommend an alternative test within the Quest Diagnostics internal network. In cases where a test must be sent out of network, we may or may not adjust pricing depending on duration.

Quest Diagnostics has a Referral Testing Service department that is responsible for all testing services not performed by Quest Diagnostics and to assist clients in the identification of testing sites(s) for unusual or esoteric tests. For the small number of tests that Quest Diagnostics refers to alternate vendors, an additional charge to cover the cost and expenses of shipping and handling would apply.

Reflex Testing

If additional testing is performed, including reflex or progressive tests and pathologist interpretation, additional charges will apply.

Test Add-Ons

Should there be a need for a client of Quest Diagnostics to add a test on to an existing test order, it is necessary to file a Test Add-On form with the applicable Quest Diagnostics testing site. Client may submit this form in hard copy or fax, or via email if accessible by the client, to the appropriate Quest Diagnostics testing site by a requesting individual that has been identified as an authorized agent of the client to do so. Authorized personnel of the client are identified in the client set up and can be adjusted as needed. Verification of the test added on is accomplished through a manner consistent with the way it was submitted to Quest Diagnostics (fax, email, etc.).

Test Changes

Quest Diagnostics has a national communication process, by which internalizations are planned 75 days in advance. The effort is coordinated nationally with 60 days' notice to each laboratory's Operations Director, at least 45 days' notice given to the laboratory's Database groups, and a minimum of 30 days' notice given to clients.

Test changes are communicated with a 30-day notice via the Laboratory Update that goes out monthly from each Business Unit. There may be an exception to the 30-day notice if a manufacturer has a recall or backorder forcing us to make a rapid change to an assay.

We announce test changes and deletions 30 days prior to implementation whenever possible. Occasionally, the 30-day lead-time cannot be provided due to situations beyond our control (i.e., a vendor does not provide test reagents when expected). New tests may be available in less than 30 days. Test orders canceled prior to test set up will not be charged.

Test Correlation
We are willing to share information regarding the instrumentation, vendor and method we use, as well as basic information regarding assay performance. At this time, Quest Diagnostics' corporate policy prevents us from providing samples, remnants or results for correlations.

Test Information
Quest Diagnostics has created an Interpretive Guide, which can be accessed at www.questdiagnostics.com or **http://nicholsinstitute.com/.** The Guide provides information relating to test selection, utilization, and interpretation. We will add new disease categories and provide additional tests and information regularly for the specialties already on the site.
All information provided is based on peer-reviewed publications and is intended to be without promotional considerations.

Standardized Tests
Test menus are determined by local and regional needs and do vary between Quest Diagnostics regional laboratories. Test menus at the Nichols Institute facilities, our two primary hospital esoteric reference laboratories located in Chantilly, Virginia and San Juan Capistrano, California, have been standardized.

As new testing becomes available through other laboratories within our network, a comprehensive approach to standardization is employed. Our Best Practices Team for each laboratory discipline issues directives and guidelines to insure that testing methods and quality are standard among testing sites. As new tests are created at the Nichols Institute facilities, national order codes are assigned.

TIQ Notification
Tests In Question (TIQs) that are not resolved by the end of an individual's shift are rescheduled for the next shift electronically. Any comments, contacts or other appropriate notes are documented within our system and are readily available for all shifts to view.

Our focus on service makes it critical for us to advise customers of QNS or TNP sample status as soon as possible. We begin our calls as soon as the problem is identified. In general, all specimens that do not meet collection criteria are called within 24 hours of receipt in the laboratory.

Unacceptable Specimens
If Quest Diagnostics does not perform or report testing, the affected tests will not be charged. Partial or incomplete test results that provide medically useful information are considered billable test results.

RESULTS REPORTING

Result Turn-Around-Time for Urine Testing

The turn-around-time (TAT) for reporting negative urine drug screen results is less than 24 hours from laboratory receipt of specimen. This measurement includes the time period from when the specimen is first received in the laboratory until the result is released by the certifying scientist and reported to the customer. Urine specimens requiring additional confirmatory testing using GC-MS(/MS) and/or LC-MS(/MS) are generally (on average) released to the designated Medical Review Officer (MRO) within 48 -72 hours from the time of specimen receipt in the laboratory.

Release of Results for Urine Testing

Once all testing is complete, the Custody and Control Form (CCF), the testing data and a printout of the computer data file are given to a Laboratory Certifying Scientist. The Certifying Scientist first reviews all documents, annotates the results, certifies the CCF and then releases results for reporting. Reports are not released until the results have been certified by the Laboratory Certifying Scientist.

When releasing results by fax or electronic download, specimens are identified by sample ID and laboratory numbers. The Laboratory does not report results containing personal identifiers (i.e., name or Social Security Number) unless additional security on the receiving end has been documented in writing.

All results will be reported in a confidential manner and according to federal guidelines and client requirements. Quest Diagnostics will provide a copy of all of Non-DOT test results to the client's Designated Employer Representative. All regulated (DOT) test results will be sent to the MRO selected by NYSDCS.

Drug Testing Online Reporting and Ordering System- Quest Integrated Solutions (QIS)

Quest Diagnostics offers online reporting via Quest Integrated Solutions (QIS), a comprehensive, Internet-based employee management program. QIS is a unique program that combines a full line of drug testing products and services; integrates compliant MRO reporting; stores employee and applicant records and provides online results delivery. QIS is easy-to-use, customizable and it streamlines information delivery and results processing in a secure, confidential manner. QIS allows companies to manage their employment programs in a secure web environment, with the ability to securely view all of your data, including account information, location, employee files, current and past results, as well as order supplies.

QIS will also automatically send an email notification when a new result is available to the designated QIS user. QIS will classify results as non-DOT on its individual specimen reports as well as identify the specimen type for each test: Urine = U. *Note: Use requires* access to a computer with internet access through Internet Explorer 8 or later and a Quest Integrated Solutions account.

QIS offers greater convenience, speed and quality with its ability to provide:

- Downloadable drug test results that can be integrated with other popular HR systems and enterprise applications, 24/7
- Random selections
- Monitoring tools that enable employers to evaluate hiring policy compliance, eliminating bias and risk associated with applying screening tools in the hiring process
- Performance monitoring tools to assess turnaround times, rates for positive drug test results, and volume usage
- An online collection site locator tool for simple collection site searches nationwide

- Industry-leading turnaround times as a result of four SAMHSA-certified laboratories utilizing an efficient unified information system
- Protocols and procedures that ensure complete accuracy and privacy of test results.
- Consolidated billing, so all services appear on a single invoice.
- Full statistical, specimen and exception-based reporting

Quest Diagnostics does not delete any information when a client requests their reporting be moved from QIS or they terminate business with us. We will also not remove a user's ID even if the account is inactive. Users would not be able to order on an inactive account, but they would still have their results and user ID unless we were asked to delete the user ID. We can remove permissions which do not allow specific individuals to order or view reports. They need to have access to the history that has gone through the system. There are also options via the "Reports" tab to run reports and save them as excel files, and there is an option to use the XML export.

Report Options
Quest Diagnostics automatically provides Statistical Utilization Reports annually for all clients that perform mandatory testing (such as Department of Transportation, DOT, drug testing) and upon request for non-mandated clients. These reports include the following: total number of specimens submitted; total number of confirmed positive test results; a list of individual analytes; and detection rates.

Quest Diagnostics will, upon request, generate custom reports, which may include:

- COC (chain of custody)
- Donor Name and Social Security Number (SSN)
- Type of device/ Product
- Date of test and report
- Result
- Collector's name

QIS Reporting Options:
Quest Diagnostics also offers via its online reporting and account management system, Quest Integrated Solutions (QIS), full statistical, specimen and exception-based reports that allow for easy data analysis. QIS provides access to a tremendous amount of statistical and management reports. Reports may be sorted by multiple parameters simultaneously – test type, by facility/cost center, department, by date range, by result, etc. and generated monthly, annually, or even daily.

The QIS online system provides reporting options as described below:

- Personnel Listing - Lists the personnel in the system allowing the user to filter by demographics if you elect to do so.
- Client Activity Report - Displays the Drug and Alcohol Management Summary Report for each QIS account. This will list a summary of the Drug and Alcohol test results for a given data range. It also allows filtering by demographics.
- Failure to Show for a Scheduled Test - Displays a report that shows the individuals who failed to show up for a Drug and or Alcohol test. The Report is populated after users update the collection status for ordered or scheduled tests located in Pending Tab.
- Test Status - Displays the report that will show the status of the tests in the system.

- Turn-Around Time - Displays the Turnaround Time report for tests in the system.
- User Listing - Displays the users defined in the system and their permissions.
- XML Export – Allows user to export Drug & Alcohol tests as well as background checks in a HRXML file format that can be used to import this information into another system.
- Donor Status Report – Allows user to upload your New Employee Hire file to verify if pre-employment testing took place.
- Pending Tests & Services - Displays pending tests and services. It's a convenient way to quickly query the system for transactions that still require action before achieving a "complete" status.
- YTD Summary - Provides a monthly breakdown of the number of tests or services ordered by location.

In the event additional reports are requested, Quest Diagnostics will work to develop specific and customized reports at that time.

Clinical Ordering and Reporting on Care360®

Quest Diagnostics clinical test ordering and result reporting is on our Internet-enabled system, Care360®. Over 170,000 clinicians nationwide use this system to order testing, view patient results, and manage data. Available in two versions, Care360® offers flexible solutions based on customer capabilities and needs:

- Real-Time version for customers with access to a high-speed Internet connection; customers using the Real-Time version enjoy access to immediate updates and information exchange through the Internet
- Batch Mode version for customers who need the ability to work off-line; this solution works well for customers in geographic areas that do not support a high-speed Internet connection because information updates are exchanged at scheduled intervals.

With Care360®, our customers can do the following:

- Order lab tests and receive results electronically through a web-enabled PC; simultaneous user access through networked PCs is also supported
- Access patient and test information anytime from any computer with an Internet connection
- Use customizable screens when placing standing orders or submitting requisitions for frequently ordered tests
- Utilize advanced reporting features, such as cumulative graphing and the ability to retrieve and print test results by patient, date, test, or abnormal result
- Access our current Directory of Services as well as ICD and CPT codes
- Online supply ordering
- Protect patient information and adhere to privacy regulations; Care360 meets all proposed Health Insurance Portability and Accountability Act (HIPAA) standards and protects patient information with 128-bit encryption and the services of Verisign™, an industry leader in system security verification

While Care360® can be the primary ordering tool, it often supplements an existing LIS interface. It can be used for ordering tests that have not been built in the interface or for order entry while the interface is under development.

OPERATIONAL LEADERSHIP

Employer Solutions

Quest Diagnostics Employer Solutions is dedicated to bringing world-class service to NYSDCS. The Laboratory Director, Certifying Scientists, Responsible Persons, a support team of individuals, including our National Client Service Center (NCSC), Key Personnel, other support staff and experienced industry professionals will work together to assume overall responsibility for the Laboratory. Quest Diagnostics has enough Key Personnel and supervisory staff and the correct organizational structure to accomplish the contract work objectives.

Each of Quest Diagnostics SAMHSA certified laboratories has a designated **Laboratory Director**, who is responsible for the overall performance of that facility. The Laboratory Directors report to the Director of Laboratory Operations and are available on a full-time basis to carry out the responsibilities of this contract. The Laboratory Director or his/her designate, also generally assumes the responsibility of the audit of all departments of the Laboratory, which is required so that individual samples or batches can be reprocessed, and recommendation may be made regarding process improvements.

The Responsible Person (RP)

The responsible person has the authority to make technical decisions for the Laboratory. Laboratory Directors are responsible for the technical quality of the work performed and the results reported by the Laboratory. Quest Diagnostics' Laboratory Directors are responsible for the training programs and certification of all technical staff and have the authority to decertify any employee who does not comply with the Laboratory's Standard Operating Procedures.

Consultative Services

Quest Diagnostics monitors changes in laws and regulations impacting workplace drug testing, including testing technologies and permitted procedures, through a variety of mechanisms. Quest Diagnostics participates as an active member in industry associations, continuing educational seminars, laboratory inspection teams, and government boards, such as the Drug Testing Advisory Board (DTAB), the Drug and Alcohol Testing Industry Association (DATIA), the Substance Abuse Program Administrators Association (SAPAA), and as a participant in the various College of American Pathologists (CAP) programs.

Through our Washington, DC regulatory office, we monitor changes in State and Federal laws affecting workforce drug testing, and in some cases, comment on those proposed changes, as appropriate. Quest Diagnostics is on the US Department of Transportation "list-service" announcing regulatory changes in the DOT mandated drug testing program. We also purchase and review the State Guide to Drug Testing Laws (typically, published annually) to determine if there are any applicable changes to our own process and procedures. Moreover, Quest Diagnostics ensures compliance by working with both in-house and outside counsel with respect to review and interpretation of workplace drug testing laws and regulations.

Quest Diagnostics can provide information on applicable state laws and regulations pertaining to drug testing. Clients are, however, advised to consult with their legal counsel on any questions related to their company policies and or state laws in their area.

VALUE ADDED SERVICES

Quest Diagnostics offers industry-leading tools and resources to help our clients answer questions, improve their programs and leverage best practices.

Drug Testing Blog
Our blog serves as a resource to stay informed with the latest news and better understand issues and trends in the drug testing industry. Use the following link to access our blog. http://blog.employersolutions.com/

Results Newsletter Signup
This monthly email newsletter provides quick access to the most current employer drug testing web content. Clients can opt in via a link that may be provided upon request.

eBrochures
For access to our library of literature which includes brochures, white papers and case studies for our drug testing suite of products.

Drug Testing Knowledge Center
The resources we've assembled in our knowledge center give you access to dynamic program-enhancing tools and information. Most of which are provided free of charge since we know that staying well-informed is important to you. Use the following link to access the knowledge center.
http://www.questdiagnostics.com/home/companies/employer/drug-screening/knowledge-center.html

Additional Drug Testing Resources
For additional information related to drug testing guidance, industry news and data, please use the following link: http://www.questdiagnostics.com/home/companies/employer/drug-screening/knowledge-center/additional-resources.html

Online Webinars
A free series of archived online webinars cover a variety of drug testing and employee screening topics. Past subjects include oral-fluid testing, hair testing, instant testing, collection issues, specimen validity testing requirements, and Policy Development.

eReq – Electronic Custody and Control Form and Online Ordering
Employers can go online and initiate a request for drug testing for an employee or applicant. The online system generates a new single page CCF that combines all donor information, provides a donor receipt and bar-coded specimen sealing and identification labels. A donor will be provided with an authorization form, via email or in person, containing a unique barcode and authorization number that he/she will take to the collection site. The collection site will scan or enter the donor's unique authorization number into the online system to immediately launch the automated collection process.

eInvoice – online management of invoices
Quest Diagnostics eInvoice allows online management of Quest Diagnostic invoices. Its capabilities allow the user to manage discrepancies, resolve disputed charges and view adjustments, transfer credits between open invoices, pay electronically by eCheck or credit card, store payment information, and schedule future payments.

Express Results *Online*

Express Results *Online* (ERO), our new electronically-managed instant urine solution, offers a broad range of test panels for up to 11 different drugs and improved reporting time to provide results in just minutes from the time of collection.

ERO FAQ link

http://questnet1.qdx.com/Business_Groups/bus_mgmt/insurer_employer_services/employer_solutions/Instant_Testing/Express_Resultsx_Online_Employer_FAQs_1-27-15.pdf

Return on Investment Calculator (ROI)

Quest Diagnostics has developed a tool that will provide employers with insight regarding the benefits associated with having a drug testing program. This tool takes industry and drug test positivity rates and combines them with your company's hiring trends. This combination creates a customized report full of valuable information specific to your drug testing program. Use the following link to access the ROI calculator: http://employersolutions.zynite.com/drugtestingROI/index2.cfm.

Drug Testing Index™ (DTI)

The industry standard, this resource examines positivity rates to provide a comprehensive analysis of workplace drug-use trends; semi-annual publication issued for the government that offers a summary of results compiled from workplace drug tests performed by Quest Diagnostics; published as a public service for government, media and industry and has been considered a benchmark for national trends since its inception in 1988.

Quest Diagnostics Drug Testing Index Website:

www.QuestDiagnostics.com/DTI

Quest Diagnostics Drug Testing Index, 2019

quest-drug-testing-index-brochure-201

We're There When You Need Us™

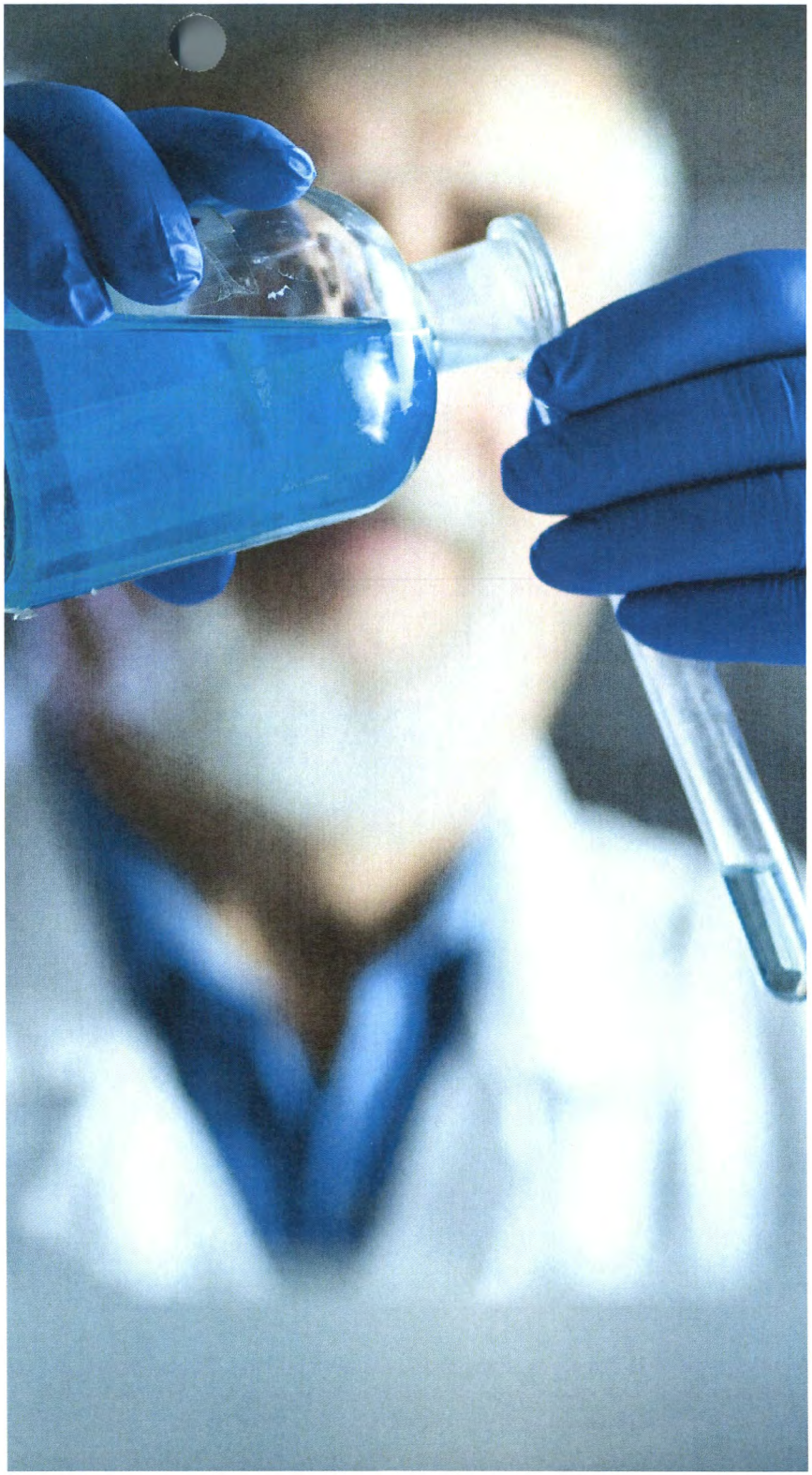
Quest Diagnostics™

Drug Testing Index™

A comprehensive analysis of workplace drug use trends

Employer Solutions Annual Report | *Spring 2019*

The Quest Diagnostics Drug Testing Index (DTI) reveals insights into patterns of drug use among the American workforce. Published annually since 1988, the Drug Testing Index examines positivity rates for workplace drugs tested by the company on behalf of employers. Quest Diagnostics publishes these findings as a public service for government, employers, policymakers, and the general public.



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Workforce Drug Testing Positivity Climbs to Highest Rate Since 2004, According to New Quest Diagnostics Analysis

The rate of workforce drug positivity hit a fourteen-year high in 2018, according to a new analysis released today by Quest Diagnostics, the world's leading provider of diagnostic information services. Positivity rates in the combined U.S. workforce increased nearly five percent in urine drug tests (4.2% in 2017 versus 4.4% in 2018), climbing to the highest level since 2004 (4.5%) and are now more than 25 percent higher than the thirty-year low of 3.5 percent recorded between 2010 and 2012.

Analysis of more than ten million workplace drug test results shows increases in marijuana positivity across nearly all employee testing categories

"Our in-depth analysis shows that marijuana is not only present in our workforce, but use continues to increase," said Barry Sample, PhD, senior director, science and technology, Quest Diagnostics. "As marijuana policy changes, and employers consider strategies to protect their employees, customers and general public, employers should weigh the risks that drug use, including marijuana, poses to their business."

Marijuana dominates in general U.S. workforce; opiate positivity declines

Marijuana continues to top the list of the most commonly detected illicit substances across all workforce categories (general U.S. workforce; federally mandated, safety-sensitive workforce; and combined U.S. workforce, which includes the prior two populations) and specimen types (urine, oral fluid, and hair).

The rate of marijuana positivity increased in nearly all workforce categories. In the general U.S. workforce, marijuana positivity increased nearly eight percent in urine testing (2.6% in 2017 versus 2.8% in 2018) and almost 17 percent since 2014 (2.4%). For the federally mandated, safety-sensitive workforce, which utilizes only urine testing, marijuana positivity grew nearly five percent between 2017 (0.84%) and 2018 (0.88%) and nearly 24 percent since 2014 (0.71%).

In the general U.S. workforce, the positivity rate for opiates in urine drug testing declined across all opiate categories. Among the general workforce screening for opiates (mostly codeine and morphine), positivity declined nearly 21 percent between 2017 and 2018 (0.39% versus 0.31%), the largest drop in three years and nearly 37 percent decrease since the peak in 2015 (0.49%). Among the more specific tests for other prescription opiates, the positivity for the semi-synthetic opiates (hydrocodone and/or hydromorphone) declined two percent between 2017 and 2018 (0.51% vs. 0.50%) and 43 percent since the five-year high in 2014 (0.88%). Similarly, the positivity for oxycodones (oxycodone and/or oxymorphone) declined more than 29 percent between 2017 and 2018 (0.61% vs. 0.43%) and more than 46 percent since the five-year high in 2014 (0.80%).

"Our in-depth analysis shows that marijuana is not only present in our workforce, but use continues to increase," said Barry Sample, PhD, senior director, science and technology, Quest Diagnostics.

Positivity rates for both heroin and cocaine declined in general and federally mandated, safety-sensitive U.S. workforce testing

Urine drug test results for the general U.S. workforce for heroin, indicated by the presence of the 6-acetylmorphine (6-AM) metabolite, declined six percent (0.033% in 2017 versus 0.031% in 2018) and more than 16 percent since its peak in 2015 and 2016 (0.037%). Cocaine positivity declined nearly seven percent in urine and more than 19 percent in oral fluid testing, but increased slightly year-over-year (6.3%) in hair testing.

Both heroin and cocaine positivity in the federally mandated, safety-sensitive workforce showed large declines between 2017 and 2018. Heroin positivity declined nearly 32 percent between 2017 and 2018 (0.019% versus 0.013%), with a decrease of more than 43 percent since 2015 (0.023%). 2018 positivity for cocaine declined nearly ten percent compared with 2017 (0.31% versus 0.28%), when the positivity rate was the highest in more than five years.

New Federal rules for opioid testing drive increase in safety-sensitive workforce positivity

Changes to Federal rules for drug testing the federally mandated, safety-sensitive workforce went into effect in January 2018. The addition of four semi-synthetic opiates contributed to the large increases in year-over-year positivity among those workers. In 2018, testing for semi-synthetic opiates (hydrocodone and/or hydromorphone) and for oxycodones (oxycodone and/or oxymorphone), the positivity rate was 0.45 percent and 0.34 percent, respectively. These positivity rates are both slightly less than general U.S. workforce testing.

Increases in post-accident positivity occur in both the federally mandated, safety-sensitive and general U.S. workforce

In the federally mandated, safety-sensitive workforce, positivity for post-accident urine testing jumped more than 51 percent year-over-year (3.1% in 2017 versus 4.7% in 2018) and increased by nearly 81 percent between 2014 and 2018. The jump in 2018 was largely driven by the addition of prescription opiates to the panel where the post-accident positivity for the semi-synthetic opiates (hydrocodone and/or hydromorphone) and for oxycodones (oxycodone and/or oxymorphone) was 1.1 percent and 0.77 percent, respectively. Post-accident positivity in the general U.S. workforce climbed nine percent year-over-year (7.7% in 2017 versus 8.4% in 2018), and 29 percent over five years. The post-accident positivity

Increases in post-accident positivity in the general U.S. workforce outpace those for all other testing reasons, including pre-employment screening

rate has risen annually since 2011 in the general U.S. workforce and since 2010 in the federally mandated, safety-sensitive workforce.

"Increases in post-accident positivity among safety-sensitive workers should serve as a warning to employers that employee drug use may increase the risk of workforce accidents or injuries" said Kimberly Samano, PhD, scientific director, Quest Diagnostics. "Our analysis suggests that employers committed to creating a safe, drug-free work environment should incorporate strategies that monitor drug use above and beyond pre-employment drug screening."

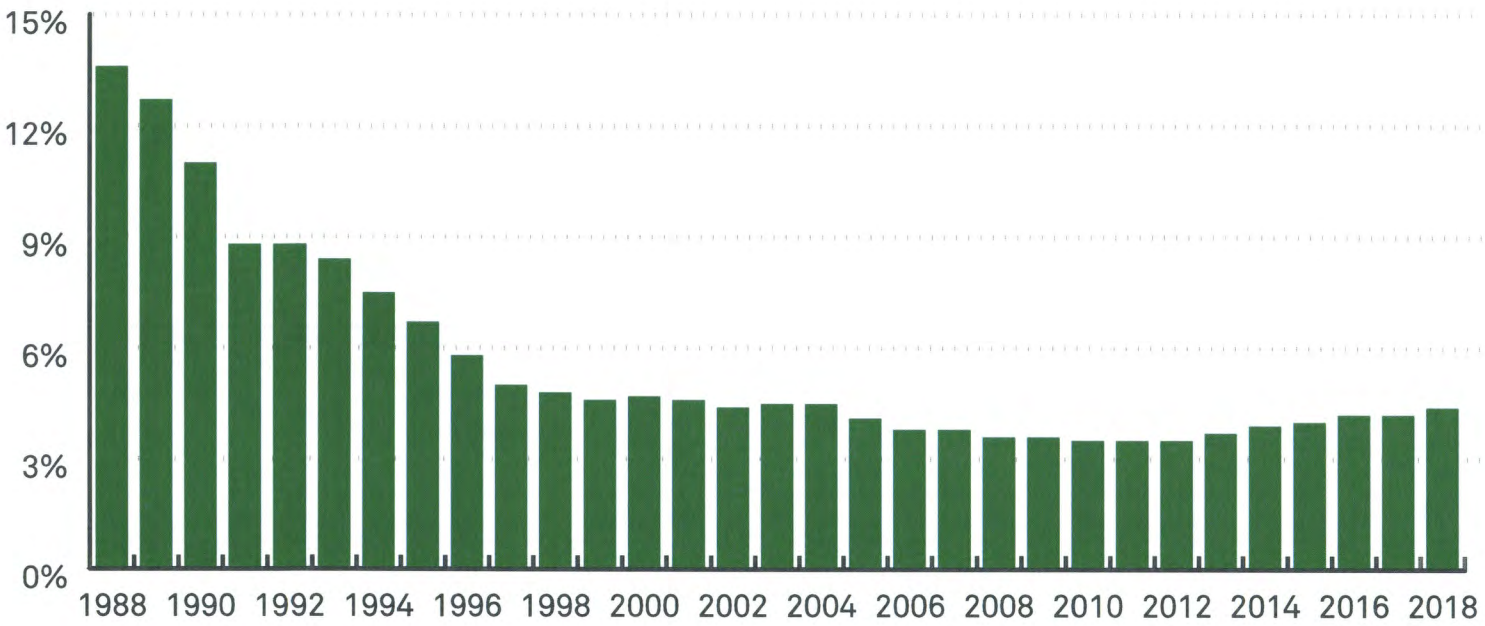
Rise in urine specimens reported as invalid suggests more efforts to "cheat the test"

Findings show an increased percentage of urine specimens in both the federally mandated, safety-sensitive and general U.S. workforces reported as invalid due to inconsistency with normal human urine, suggesting attempts at specimen adulteration or substitution. Between 2017 and 2018, the percentage of invalid results in the federally mandated, safety-sensitive workforce jumped 80 percent (0.15% versus 0.27%), and 40 percent in the general U.S. workforce (0.15% versus 0.21%).

For more information about the Quest Diagnostics Drug Testing Index, visit **QuestDiagnostics.com/DTI.**

Annual Positivity Rates

Urine Drug Tests - For Combined U.S. Workforce



Nearly 9 million tests from January to December 2018

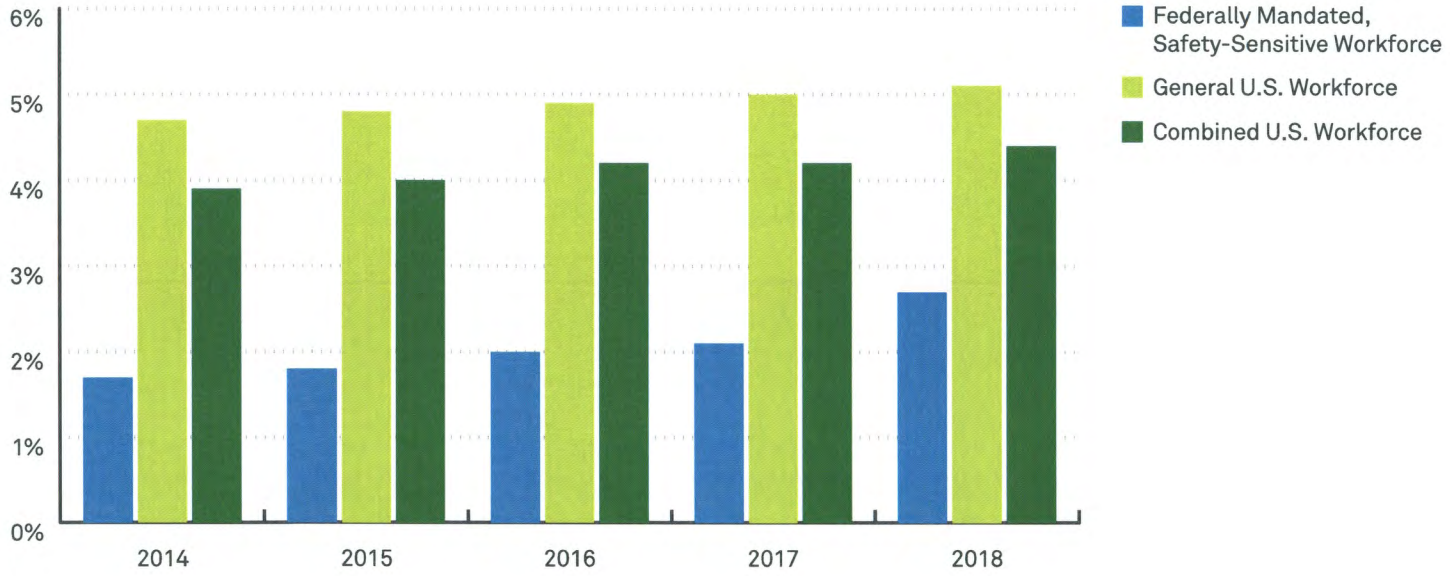
Year	Drug Positivity Rate
1988	13.6%
1989	12.7%
1990	11.0%
1991	8.8%
1992	8.8%
1993	8.4%
1994	7.5%
1995	6.7%
1996	5.8%
1997	5.0%

Year	Drug Positivity Rate
1998	4.8%
1999	4.6%
2000	4.7%
2001	4.6%
2002	4.4%
2003	4.5%
2004	4.5%
2005	4.1%
2006	3.8%
2007	3.8%

Year	Drug Positivity Rate
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%

Positivity Rates by Testing Category

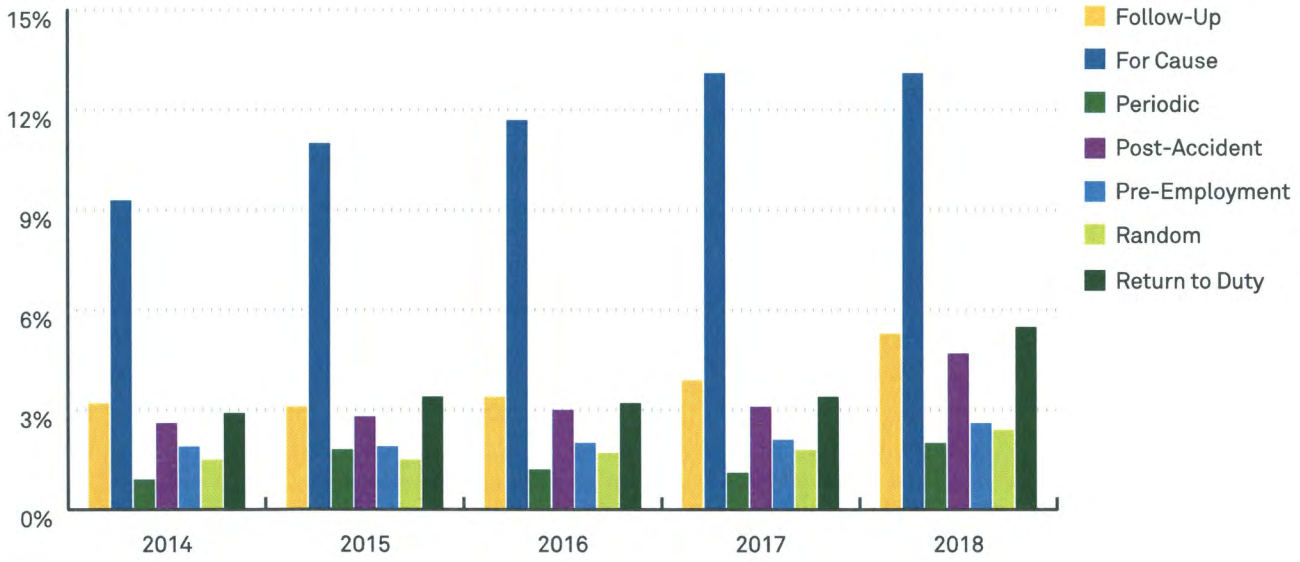
Urine Drug Tests



Testing Category	2014	2015	2016	2017	2018
Federally Mandated, Safety-Sensitive Workforce	1.7%	1.8%	2.0%	2.1%	2.7%
General U.S. Workforce	4.7%	4.8%	4.9%	5.0%	5.1%
Combined U.S. Workforce	3.9%	4.0%	4.2%	4.2%	4.4%

Positivity Rates by Testing Reason

Urine Drug Tests – For Federally Mandated, Safety-Sensitive Workforce

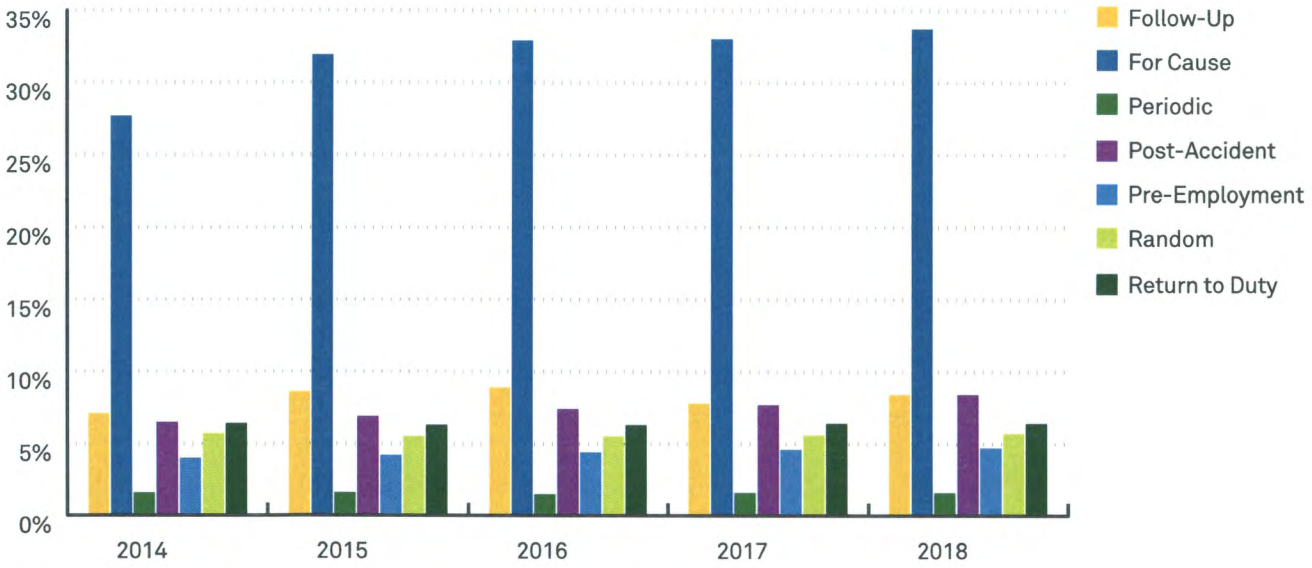


More than 2.4 million tests from January to December 2018

Testing Reason	2014	2015	2016	2017	2018
Follow-Up	3.2%	3.1%	3.4%	3.9%	5.3%
For Cause	9.3%	11.0%	11.7%	13.1%	13.1%
Periodic	0.9%	1.8%	1.2%	1.1%	2.0%
Post-Accident	2.6%	2.8%	3.0%	3.1%	4.7%
Pre-Employment	1.9%	1.9%	2.0%	2.1%	2.6%
Random	1.5%	1.5%	1.7%	1.8%	2.4%
Return to Duty	2.9%	3.4%	3.2%	3.4%	5.5%

Positivity Rates by Testing Reason

Urine Drug Tests – For General U.S. Workforce

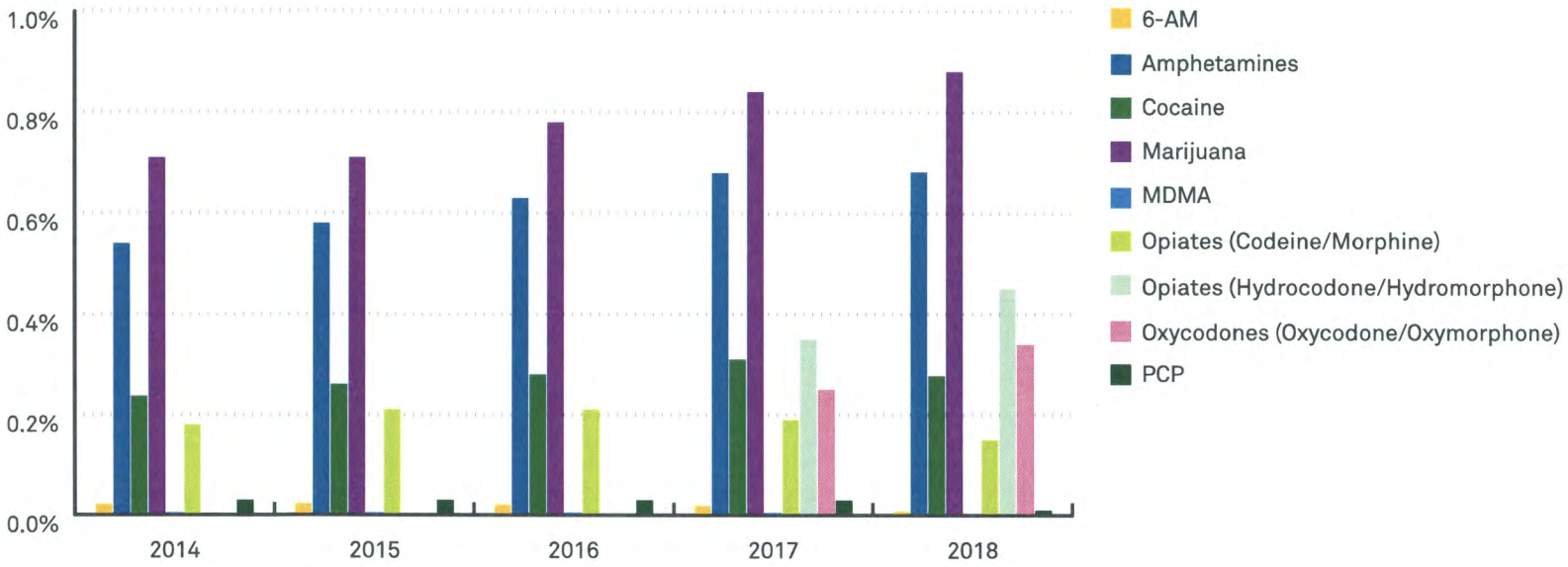


More than 6.5 million tests from January to December 2018

Testing Reason	2014	2015	2016	2017	2018
Follow-Up	7.1%	8.6%	8.9%	7.8%	8.4%
For Cause	27.7%	31.9%	32.9%	33.0%	33.7%
Periodic	1.6%	1.6%	1.5%	1.6%	1.6%
Post-Accident	6.5%	6.9%	7.4%	7.7%	8.4%
Pre-Employment	4.0%	4.2%	4.4%	4.6%	4.7%
Random	5.7%	5.5%	5.5%	5.6%	5.7%
Return to Duty	6.4%	6.3%	6.3%	6.4%	6.4%

Positivity Rates by Drug Category

Urine Drug Tests – For Federally Mandated, Safety-Sensitive Workforce, as a Percentage of All Such Tests



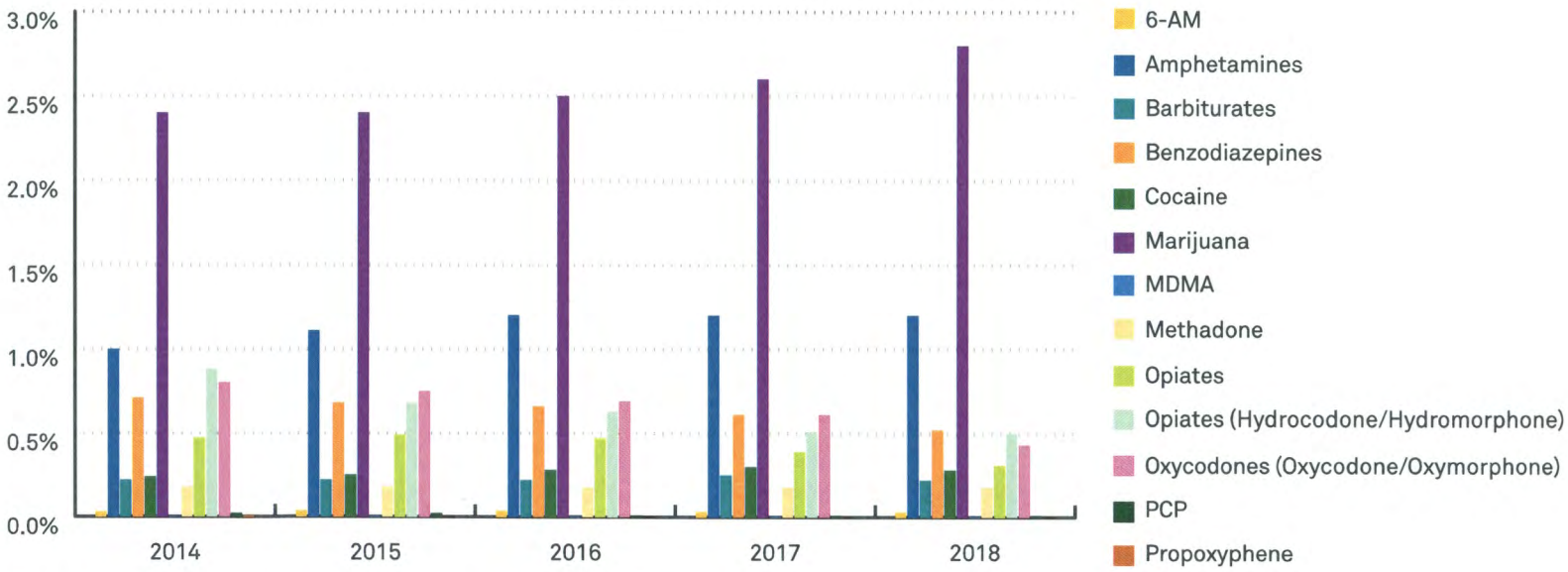
More than 2.4 million tests from January to December 2018

Drug Category	2014	2015	2016	2017	2018
6-AM	0.022%	0.023%	0.021%	0.019%	0.013%
Amphetamines	0.54%	0.58%	0.63%	0.68%	0.68%
Cocaine	0.25%	0.26%	0.28%	0.31%	0.28%
Marijuana	0.71%	0.71%	0.78%	0.84%	0.88%
MDMA	0.005%	0.005%	0.005%	0.005%	0.003%
Opiates (Codeine/Morphine)	0.18%	0.21%	0.21%	0.19%	0.15%
Opiates (Hydrocodone/Hydromorphone)	-	-	-	0.35%[1]	0.45%
Oxycodones (Oxycodone/Oxymorphone)	-	-	-	0.25%[1]	0.34%
PCP	0.03%	0.03%	0.03%	0.03%	0.01%

[1]2017 Federal employee testing October through December

Positivity Rates by Drug Category

Urine Drug Tests – For General U.S. Workforce, as a Percentage of All Such Tests



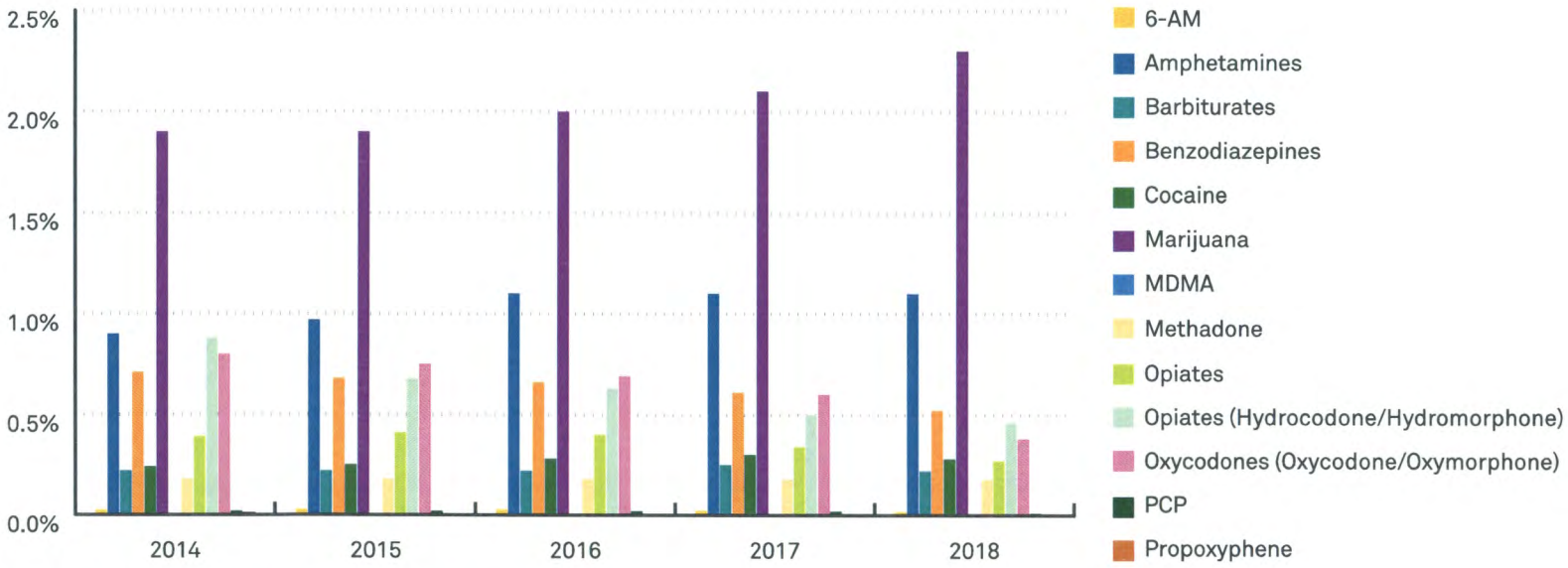
More than 6.5 million tests from January to December 2018

Drug Category	2014	2015	2016	2017	2018
6-AM	0.031%	0.037%	0.037%	0.033%	0.031%
Amphetamines	1.0%	1.1%	1.2%	1.2%	1.2%
Barbiturates	0.22%	0.22%	0.22%	0.25%	0.22%
Benzodiazepines	0.71%	0.68%	0.66%	0.61%	0.52%
Cocaine	0.24%	0.25%	0.28%	0.30%	0.28%
Marijuana	2.4%	2.4%	2.5%	2.6%	2.8%
MDMA	0.003%	0.005%	0.004%	0.005%	0.006%
Methadone	0.18%	0.18%	0.18%	0.18%	0.18%

Drug Category	2014	2015	2016	2017	2018
Opiates	0.47%	0.49%	0.47%	0.39%	0.31%
Opiates (Hydrocodone/ Hydromorphone)	0.88%	0.68%	0.63%	0.51%	0.50%
Oxycodones (Oxycodone/Oxymorphone)	0.80%	0.75%	0.69%	0.61%	0.43%
PCP	0.02%	0.02%	0.01%	0.01%	0.01%
Propoxyphene	0.01%	0.00%	0.00%	0.00%	0.00%

Positivity Rates by Drug Category

Urine Drug Tests – For Combined U.S. Workforce, as a Percentage of All Such Tests



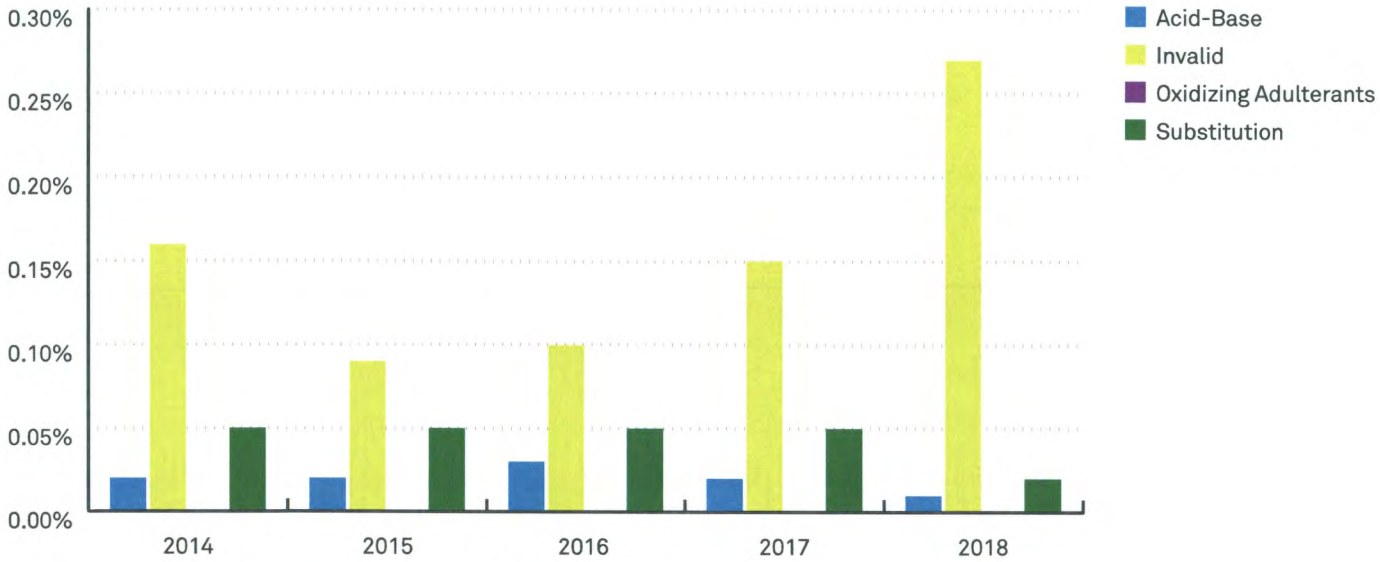
Nearly 9 million tests from January to December 2018

Drug Category	2014	2015	2016	2017	2018
6-AM	0.025%	0.028%	0.028%	0.024%	0.019%
Amphetamines	0.90%	0.97%	1.1%	1.1%	1.1%
Barbiturates	0.22%	0.22%	0.22%	0.25%	0.22%
Benzodiazepines	0.71%	0.68%	0.66%	0.61%	0.52%
Cocaine	0.24%	0.25%	0.28%	0.30%	0.28%
Marijuana	1.9%	1.9%	2.0%	2.1%	2.3%
MDMA	0.004%	0.005%	0.004%	0.005%	0.005%
Methadone	0.18%	0.18%	0.18%	0.18%	0.18%

Drug Category	2014	2015	2016	2017	2018
Opiates	0.39%	0.41%	0.40%	0.34%	0.27%
Opiates (Hydrocodone/ Hydromorphone)	0.88%	0.68%	0.63%	0.50%	0.46%
Oxycodones (Oxycodone/Oxymorphone)	0.80%	0.75%	0.69%	0.60%	0.38%
PCP	0.02%	0.02%	0.02%	0.02%	0.01%
Propoxyphene	0.01%	0.00%	0.00%	0.00%	0.00%

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



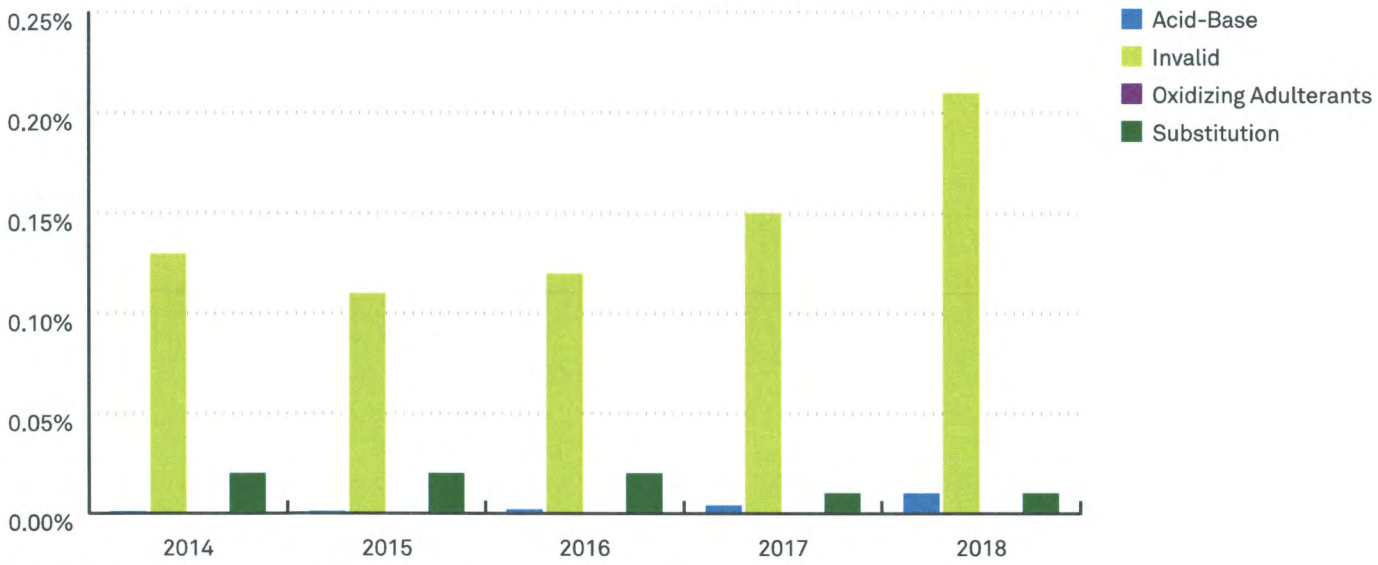
More than 2.4 million tests from January to December 2018

SVT Category	2014	2015	2016	2017	2018
Acid-Base	0.02%	0.02%	0.03%	0.02%	0.01%
Invalid	0.16%	0.09%	0.10%	0.15%	0.27%
Oxidizing Adulterants	0.000%	0.000%	0.000%	0.000%	0.000%
Substitution	0.05%	0.05%	0.05%	0.05%	0.02%

[2]Specimen 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.

Non-Negative Rates by Specimen Validity Test (SVT) Category

Urine Drug Tests – For General U.S. Workforce, as a Percentage of All Such Tests

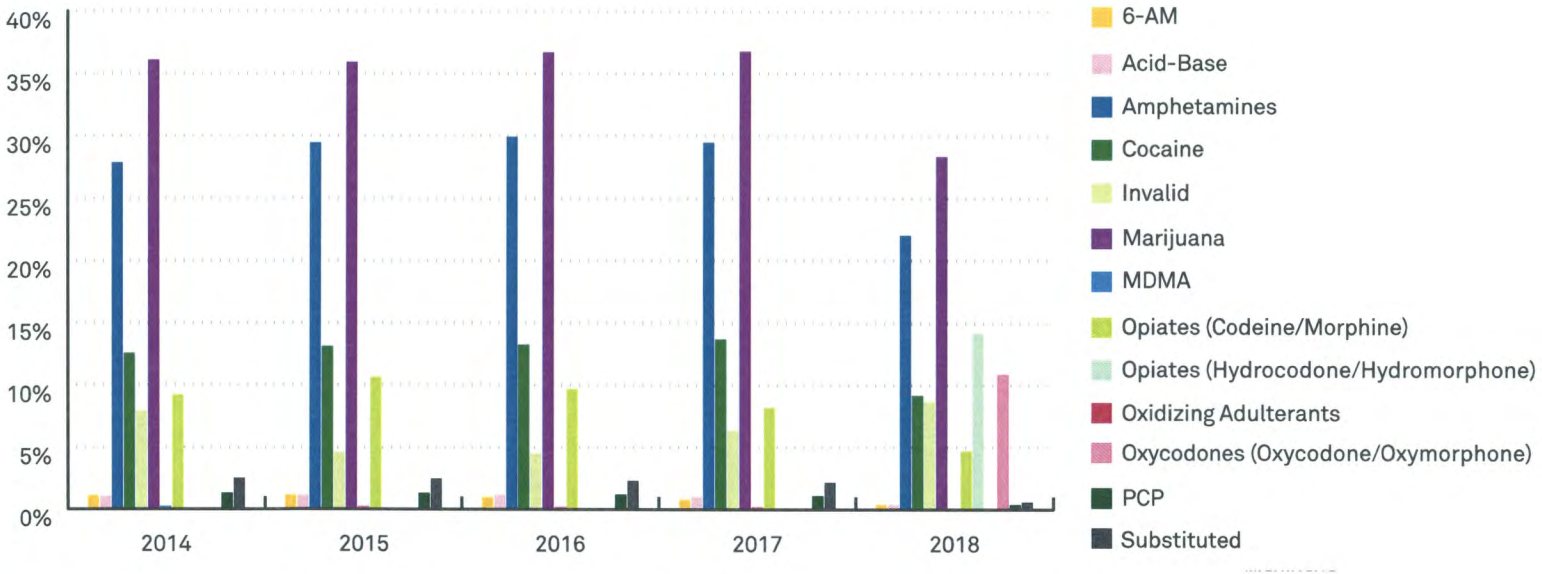


More than 6.5 million tests from January to December 2018

Drug/SVT Category	2014	2015	2016	2017	2018
Acid-Base	0.001%	0.001%	0.002%	0.004%	0.010%
Invalid	0.13%	0.11%	0.12%	0.15%	0.21%
Oxidizing Adulterants	0.000%	0.000%	0.000%	0.000%	0.000%
Substitution	0.02%	0.02%	0.02%	0.01%	0.01%

Non-Negative Rates by Drug/SVT Category

Urine Drug Tests – For Federally Mandated, Safety-Sensitive Workforce, as a Percentage of All Non-Negatives



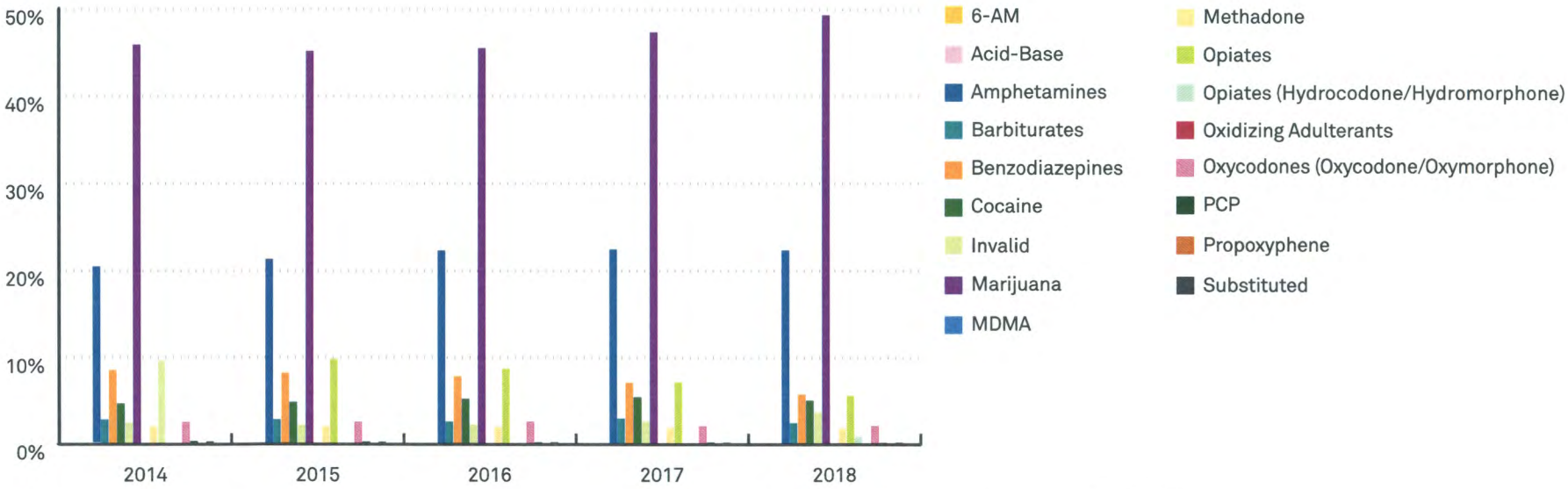
More than 70 thousand non-negative test results from January to December 2018

Drug/SVT Category	2014	2015	2016	2017	2018
6-AM	1.1%	1.1%	0.99%	0.82%	0.40%
Acid-Base	1.1%	1.1%	1.2%	1.0%	0.41%
Amphetamines	27.9%	29.5%	29.9%	29.5%	22.1%
Cocaine	12.6%	13.1%	13.3%	13.7%	9.2%
Invalid	8.0%	4.6%	4.5%	6.4%	8.7%
Marijuana	36.1%	35.9%	36.7%	36.8%	28.4%
MDMA	0.24%	0.24%	0.21%	0.23%	0.09%
Opiates (Codeine/Morphine)	9.2%	10.7%	9.7%	8.2%	4.7%

Drug/SVT Category	2014	2015	2016	2017	2018
Opiates (Hydrocodone/ Hydromorphone)	-	-	-	-	14.2%
Oxidizing Adulterants	0.000%	0.000%	0.000%	0.000%	0.000%
Oxycodones (Oxycodone/Oxymorphone)	-	-	-	-	10.9%
PCP	1.3%	1.3%	1.2%	1.1%	0.41%
Substituted	2.5%	2.5%	2.3%	2.2%	0.62%

Non-Negative Rates by Drug/SVT Category

Urine Drug Tests – For General U.S. Workforce, as a Percentage of All Non-Negatives



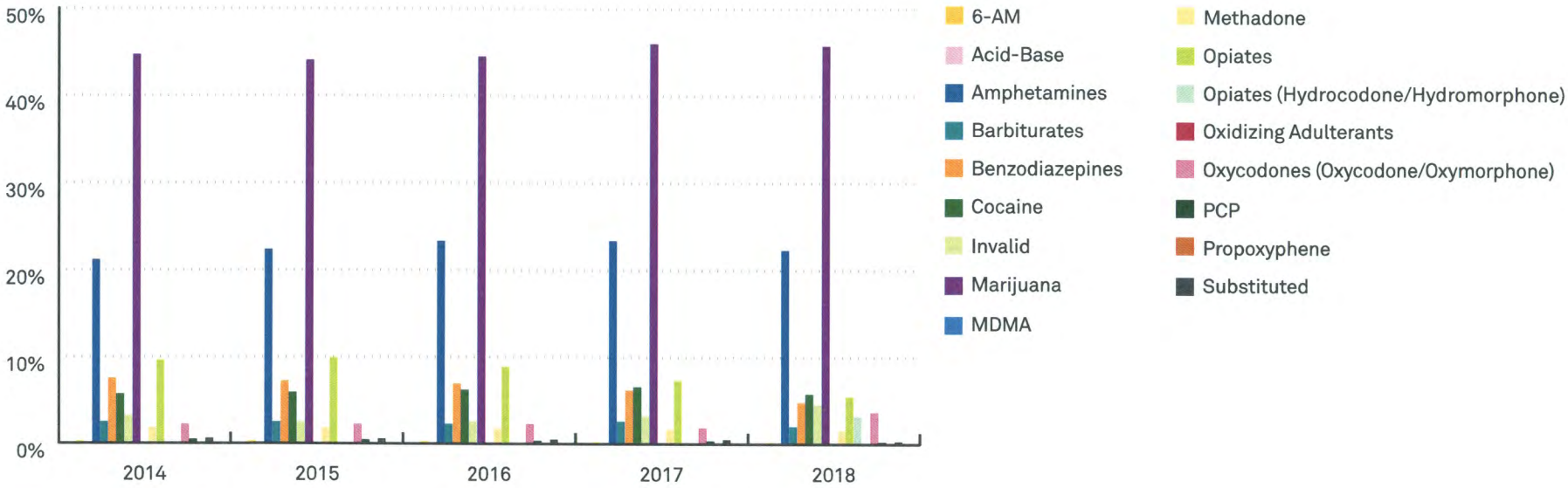
More than 360 thousand non-negative test results from January to December 2018

Drug/SVT Category	2014	2015	2016	2017	2018
6-AM	0.14%	0.16%	0.15%	0.12%	0.12%
Acid-Base	0.03%	0.03%	0.03%	0.07%	0.17%
Amphetamines	20.2%	21.3%	22.3%	22.4%	22.3%
Barbiturates	2.8%	2.8%	2.6%	3.0%	2.5%
Benzodiazepines	8.6%	8.2%	7.8%	7.1%	5.8%
Cocaine	4.7%	4.9%	5.2%	5.5%	5.1%
Invalid	2.5%	2.2%	2.3%	2.7%	3.7%
Marijuana	45.9%	45.2%	45.5%	47.4%	49.3%
MDMA	0.02%	0.03%	0.03%	0.03%	0.04%
Methadone	2.1%	2.1%	2.1%	2.0%	1.9%

Drug/SVT Category	2014	2015	2016	2017	2018
Opiates	9.6%	9.8%	8.7%	7.2%	5.6%
Opiates (Hydrocodone/ Hydromorphone)	-	-	-	-	0.91%
Oxidizing Adulterants	0.000%	0.000%	0.000%	0.000%	0.000%
Oxycodones (Oxycodone/Oxymorphone)	2.6%	2.6%	2.6%	2.1%	2.2%
PCP	0.36%	0.31%	0.24%	0.24%	0.20%
Propoxyphene	0.06%	0.03%	0.02%	0.02%	0.01%
Substituted	0.35%	0.32%	0.28%	0.26%	0.24%

Non-Negative Rates by Drug/SVT Category

Urine Drug Tests – For Combined U.S. Workforce, as a Percentage of All Non-Negatives



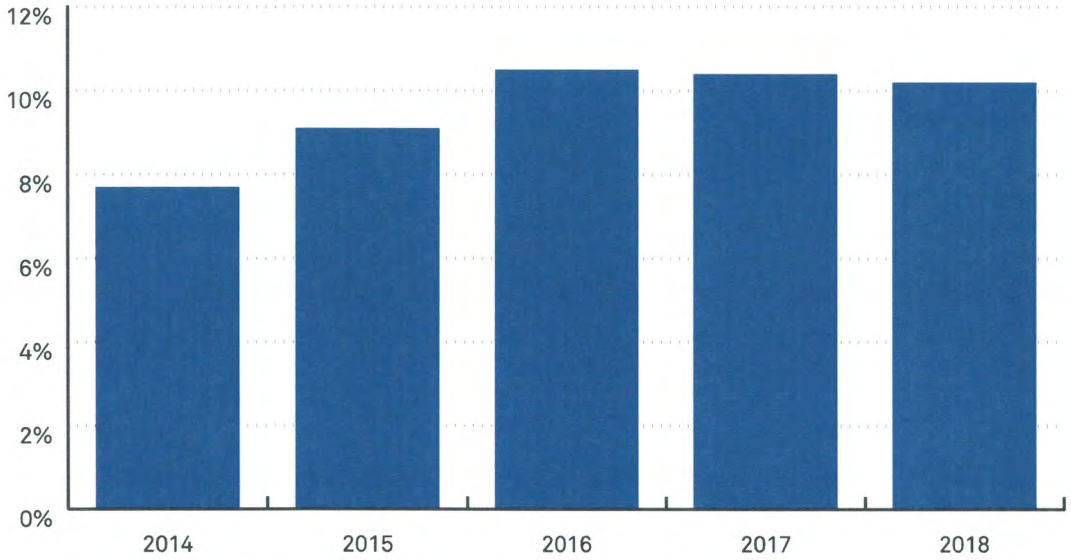
More than 430 thousand non-negative test results from January to December 2018

Drug/SVT Category	2014	2015	2016	2017	2018
6-AM	0.26%	0.28%	0.25%	0.21%	0.17%
Acid-Base	0.16%	0.16%	0.17%	0.20%	0.21%
Amphetamines	21.2%	22.3%	23.2%	23.4%	22.3%
Barbiturates	2.5%	2.5%	2.3%	2.6%	2.0%
Benzodiazepines	7.5%	7.2%	6.9%	6.2%	4.8%
Cocaine	5.7%	5.9%	6.2%	6.5%	5.8%
Invalid	3.2%	2.5%	2.6%	3.2%	4.5%
Marijuana	44.7%	44.1%	44.5%	46.0%	45.8%
MDMA	0.05%	0.06%	0.05%	0.06%	0.05%
Methadone	1.9%	1.9%	1.8%	1.7%	1.6%

Drug/SVT Category	2014	2015	2016	2017	2018
Opiates	9.6%	9.9%	8.9%	7.3%	5.5%
Opiates (Hydrocodone/ Hydromorphone)	-	-	-	-	3.2%
Oxidizing Adulterants	0.000%	0.000%	0.000%	0.000%	0.000%
Oxycodones (Oxycodone/Oxymorphone)	2.2%	2.3%	2.3%	1.9%	3.7%
PCP	0.48%	0.43%	0.36%	0.35%	0.24%
Propoxyphene	0.06%	0.03%	0.02%	0.01%	0.01%
Substituted	0.62%	0.58%	0.52%	0.51%	0.31%

Positivity Rates by Testing Category

Oral Fluid Drug Tests – For General U.S. Workforce

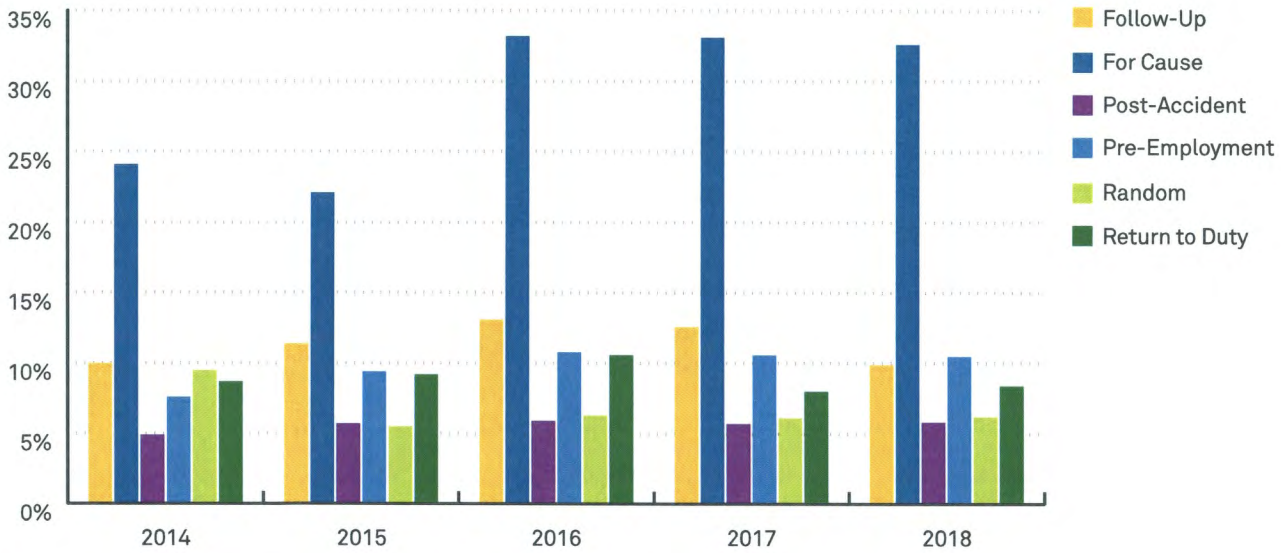


More than 1.3 million tests from January to December 2018

Testing Category	2014	2015	2016	2017	2018
General U.S. Workforce	7.7%	9.1%	10.5%	10.4%	10.2%

Positivity Rates by Testing Reason

Oral Fluid Drug Tests – For General U.S. Workforce

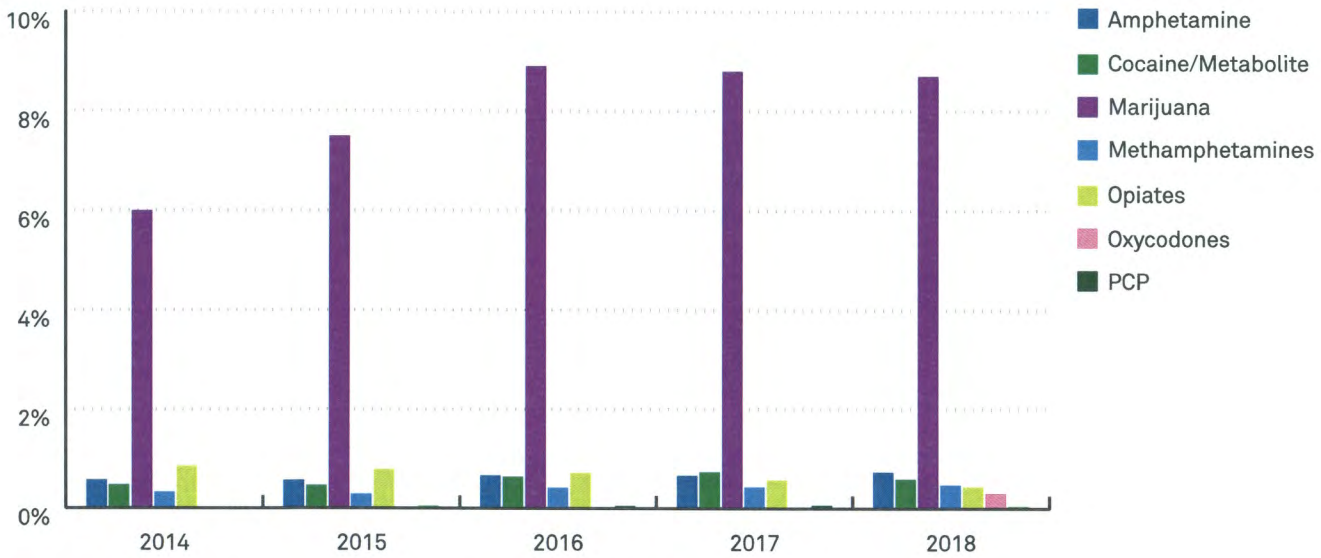


More than 1.3 million tests from January to December 2018

Testing Reason	2014	2015	2016	2017	2018
Follow-Up	10.0%	11.4%	13.1%	12.6%	9.9%
For Cause	24.1%	22.1%	33.2%	33.1%	32.6%
Post-Accident	4.9%	5.7%	5.9%	5.7%	5.8%
Pre-Employment	7.6%	9.4%	10.8%	10.6%	10.5%
Random	9.5%	5.5%	6.3%	6.1%	6.2%
Return to Duty	8.7%	9.2%	10.6%	8.0%	8.4%

Positivity Rates by Drug Category

Oral Fluid Drug Tests – For General U.S. Workforce

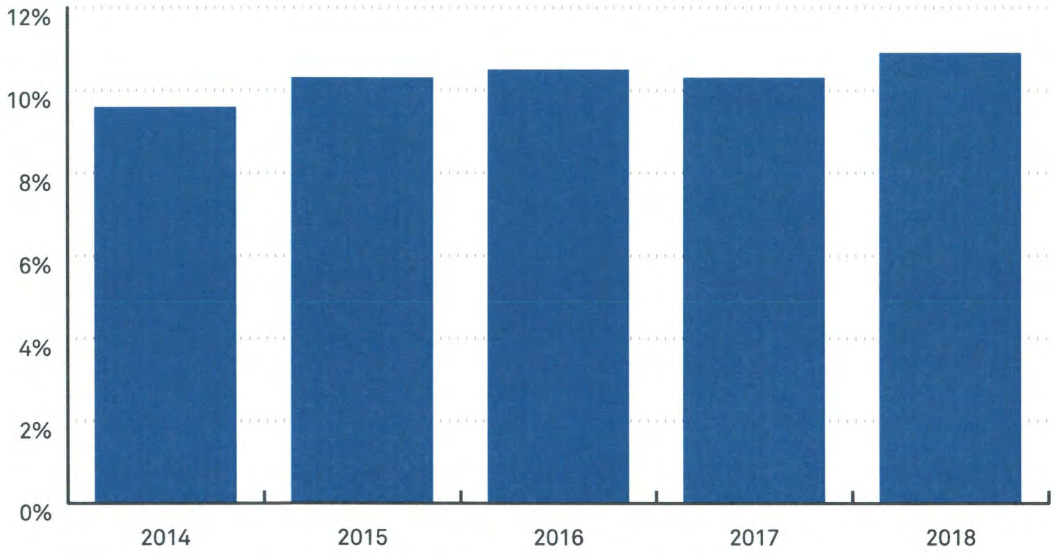


More than 1.3 million tests from January to December 2018

Drug Category	2014	2015	2016	2017	2018
Amphetamine	0.57%	0.56%	0.66%	0.66%	0.73%
Cocaine/Metabolite	0.47%	0.46%	0.63%	0.73%	0.59%
Marijuana	6.0%	7.5%	8.9%	8.8%	8.7%
Methamphetamines	0.33%	0.29%	0.42%	0.43%	0.47%
Opiates	0.85%	0.78%	0.71%	0.57%	0.44%
Oxycodones	-	-	-	-	0.31%
PCP	0.02%	0.04%	0.05%	0.06%	0.04%

Positivity Rates by Testing Category

Hair Drug Tests – For General U.S. Workforce

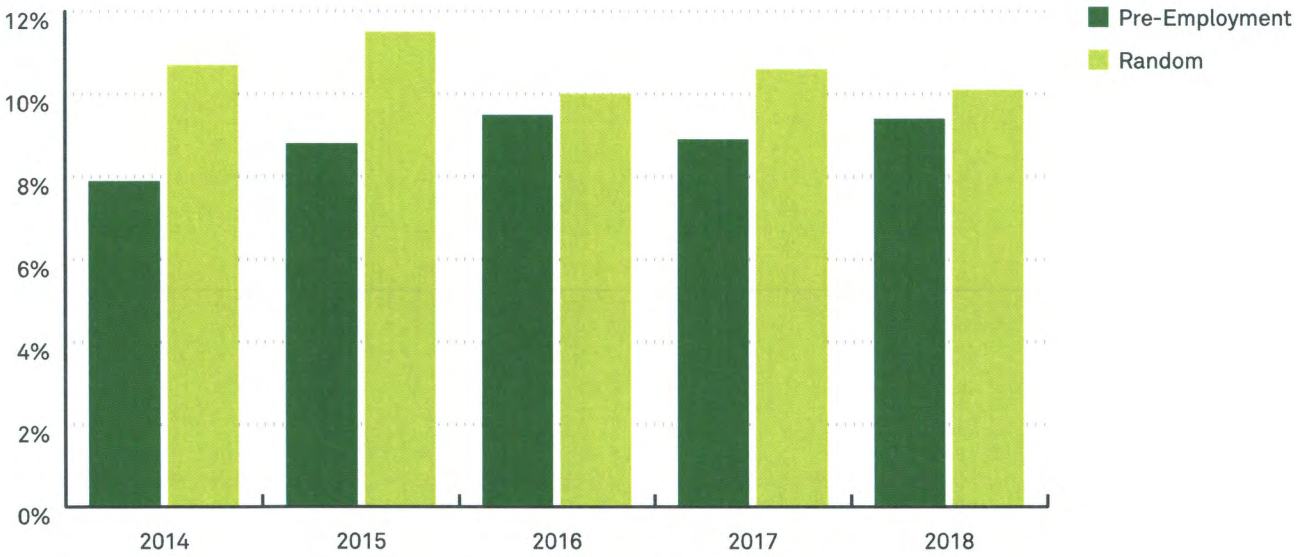


More than 160 thousand tests from January to December 2018

Testing Category	2014	2015	2016	2017	2018
General U.S. Workforce	9.6%	10.3%	10.5%	10.3%	10.9%

Positivity Rates by Testing Reason

Hair Drug Tests – For General U.S. Workforce

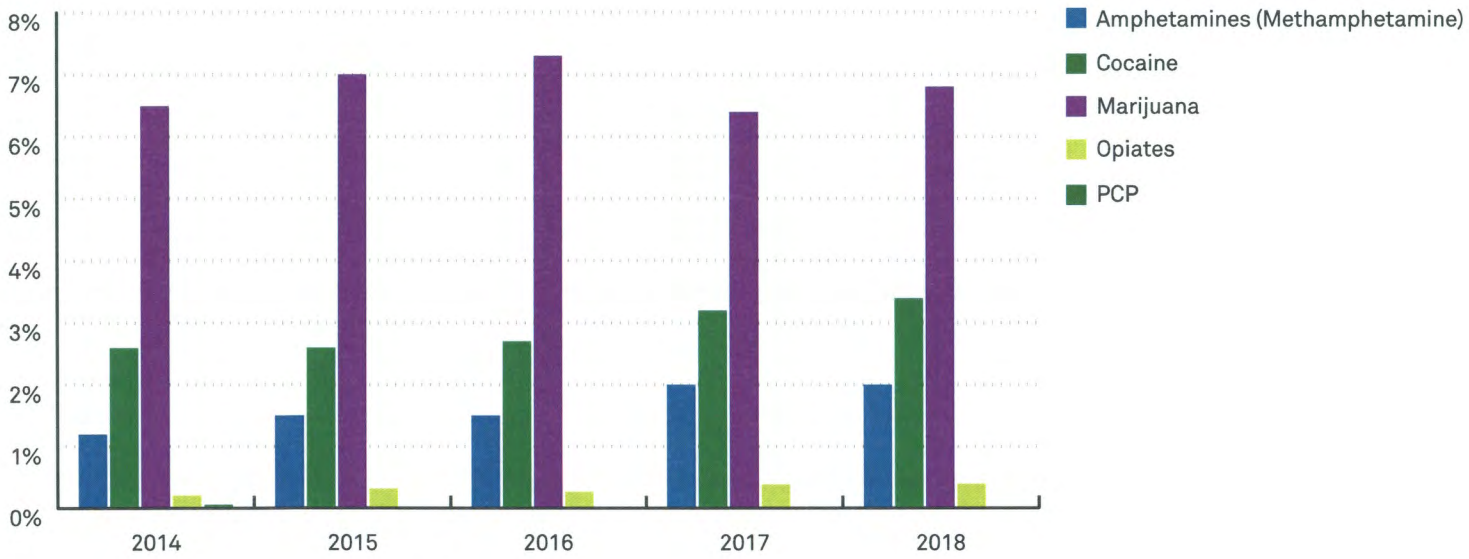


More than 160 thousand tests from January to December 2018

Testing Reason	2014	2015	2016	2017	2018
Pre-Employment	7.9%	8.8%	9.5%	8.9%	9.4%
Random	10.7%	11.5%	10.0%	10.6%	10.1%

Positivity Rates by Drug Category

Hair Drug Tests – For General U.S. Workforce



More than 160 thousand tests from January to December 2018

Drug Category	2014	2015	2016	2017	2018
Amphetamines (Methamphetamine)	1.2%	1.5%	1.5%	2.0%	2.0%
Cocaine	2.6%	2.6%	2.7%	3.2%	3.4%
Marijuana	6.5%	7.0%	7.3%	6.4%	6.8%
Opiates	0.21%	0.32%	0.27%	0.38%	0.39%
PCP	0.06%	0.01%	0.01%	0.01%	0.02%

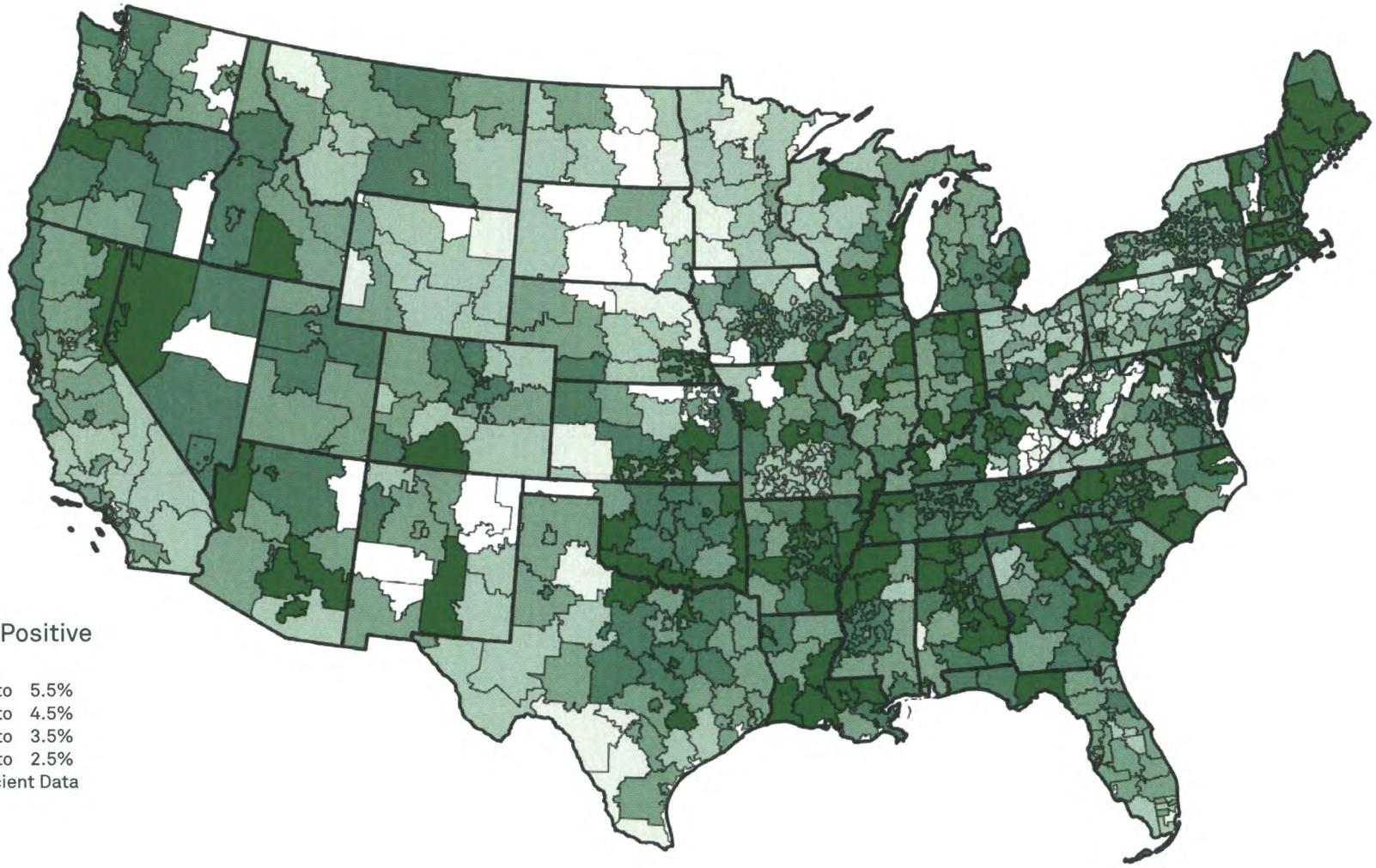
3-Digit Zip Code Drug Positivity Maps

Urine Drug Tests – For Combined U.S. Workforce

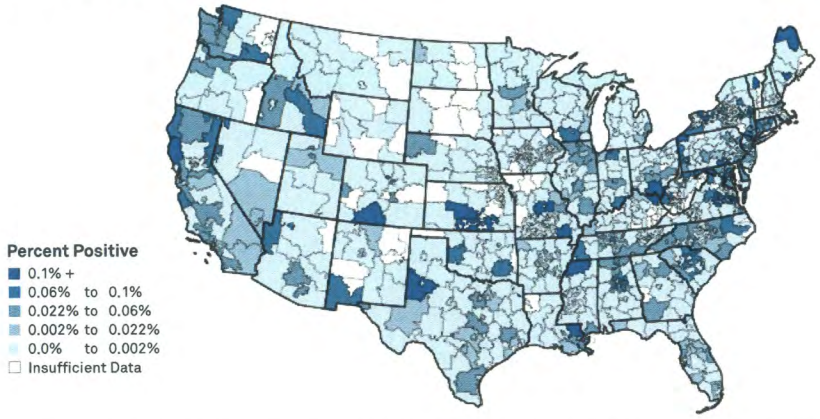
January - December 2018

For an interactive map with positivity rates and trend lines by three-digit zip code in the United States, visit QuestDiagnostics.com/DrugMap.

Overall Positivity

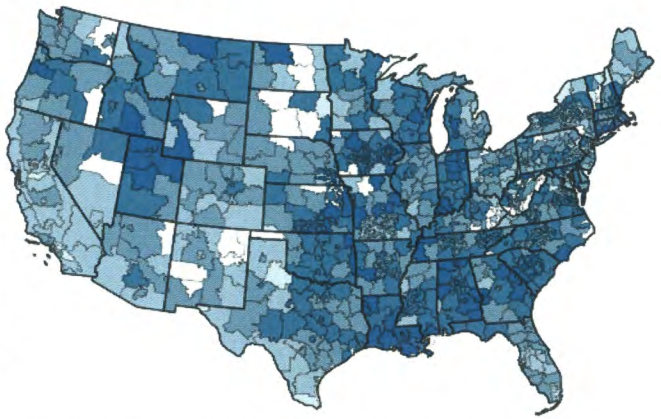


6-AM Positivity



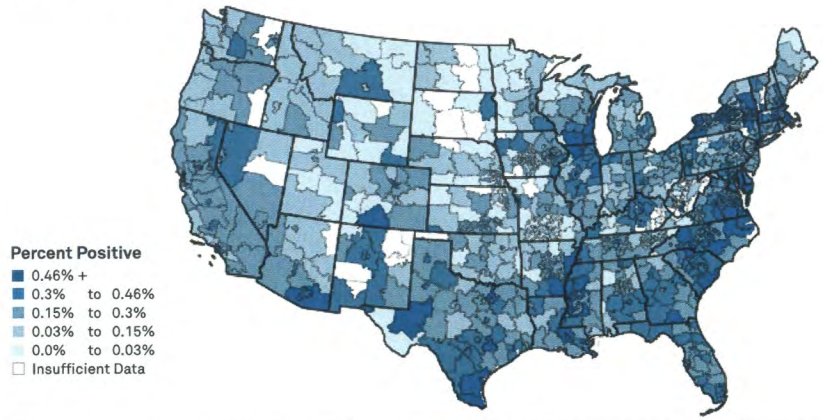
Percent Positive
- 0.1% +
- 0.06% to 0.1%
- 0.022% to 0.06%
- 0.002% to 0.022%
- 0.0% to 0.002%
- Insufficient Data

Amphetamines Positivity



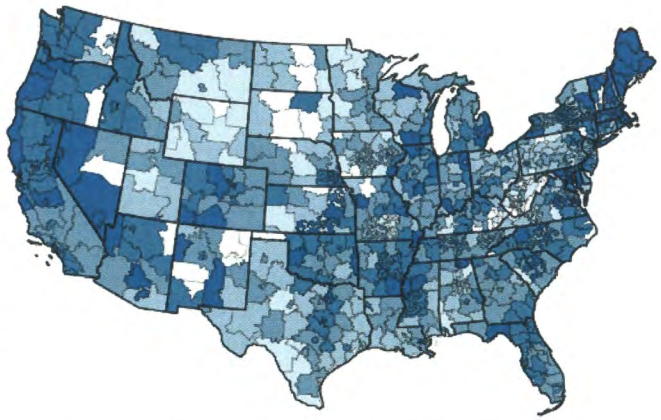
Percent Positive
- 1.9% +
- 1.3% to 1.9%
- 0.85% to 1.3%
- 0.47% to 0.85%
- 0.0% to 0.47%
- Insufficient Data

Cocaine Positivity



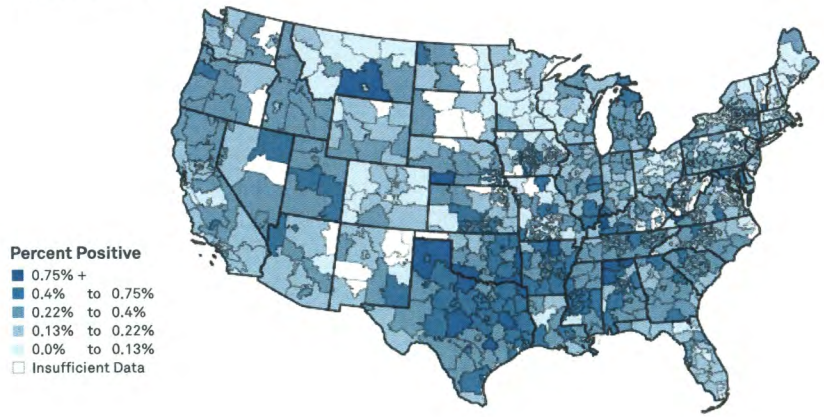
Percent Positive
- 0.46% +
- 0.3% to 0.46%
- 0.15% to 0.3%
- 0.03% to 0.15%
- 0.0% to 0.03%
- Insufficient Data

Marijuana Positivity



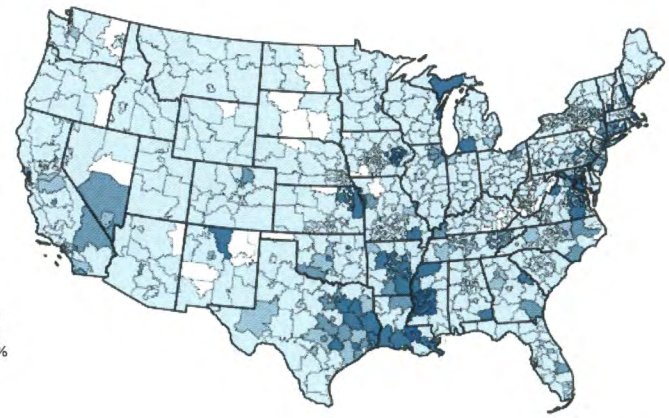
Percent Positive
- 3.1% +
- 2.2% to 3.1%
- 1.6% to 2.2%
- 1.1% to 1.6%
- 0.0% to 1.1%
- Insufficient Data

Opiates Positivity



Percent Positive
- 0.75% +
- 0.4% to 0.75%
- 0.22% to 0.4%
- 0.13% to 0.22%
- 0.0% to 0.13%
- Insufficient Data

PCP Positivity



Percent Positive
- 0.1% +
- 0.03% to 0.1%
- 0.01% to 0.03%
- 0.001% to 0.01%
- 0.0% to 0.001%
- Insufficient Data

About Quest Diagnostics

Quest Diagnostics helps empower people to take action to improve health outcomes. Derived from the world's largest database of clinical lab results, our diagnostic insights reveal new avenues to identify and treat disease, inspire healthy behaviors, and improve healthcare management. Quest annually serves one in three adult Americans and half the physicians and hospitals in the United States, and our 45,000 employees understand that, in the right hands and with the right context, our diagnostic insights can inspire actions that transform lives. **QuestDiagnostics.com**.

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we're there