

Porter Research Survey Edition 2021

A Comprehensive Look at Drug Diversion
from the View of Healthcare Executives,
Pharmacists, and Drug Diversion Specialists

commissioned by
invistics[®]

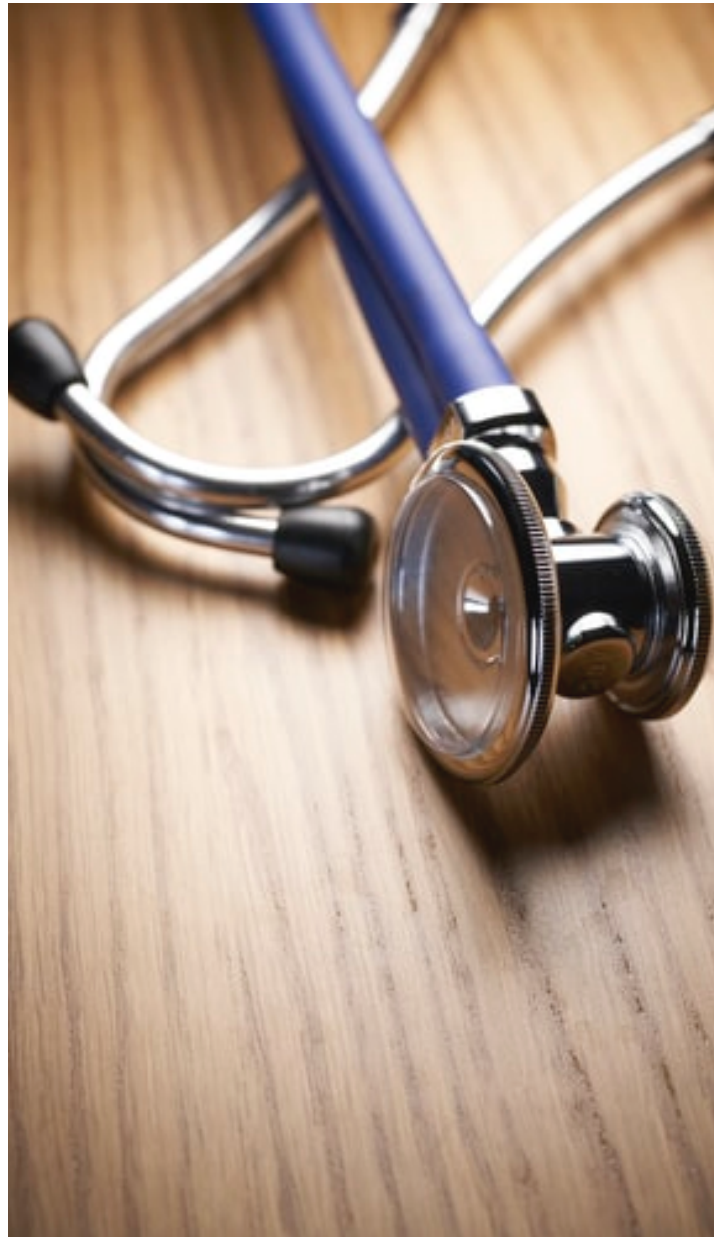


Executive Summary

In 2017 and 2019, Porter Research, an Atlanta-based provider of market research intelligence to healthcare companies, completed two studies of drug-diversion detection programs in healthcare facilities.

Nearly all survey participants in 2017 and 2019 acknowledged that drug diversion was occurring, but also believed that the majority of diversion incidents remained undetected. About two-thirds of participants said they were either “not confident” or only “somewhat confident” that the drug-diversion programs in their facilities were effective and efficient.

In early 2021, Porter Research reached out to a similar number of healthcare executives and other drug diversion specialists to gauge how drug diversion monitoring is evolving in 2021, amid the ongoing COVID-19 pandemic, and how healthcare organizations are striving to monitor the movement of controlled substances across supply chains. The study takes an in- depth look at the changes and challenges that have emerged since late 2019.





Key Takeaways 2021

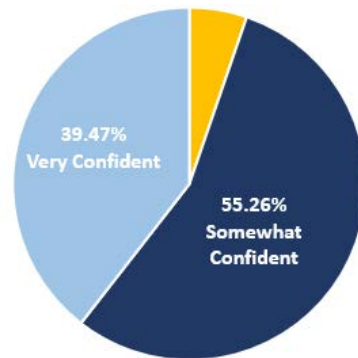
- Nearly all (96%) agree that drug diversion is occurring in hospitals across the United States
- 73% agree that most drug diversion goes undetected
- 82% have met someone who has diverted drugs
- Nearly half (47%) of respondents said that staff turnover due to the pandemic made it more challenging to track drug diversion and 38% said that resources for drug diversion investigations were reallocated due to budget cuts because of the pandemic

What Remains The Same

The vast majority of survey participants have high familiarity with the drug diversion programs in their facilities. When asked to compare the effectiveness and efficiency of their diversion programs with those of other healthcare facilities, ratings remained steady from 2017 to 2021. Most survey respondents agree that drug diversion is still a priority and that it still occurring at roughly the same rate as before. Also, the majority of participants still say they are only “somewhat confident” that their programs are working as well as possible, and agree that drug diversion poses a significant risk to employees, patients, and their respective organizations.

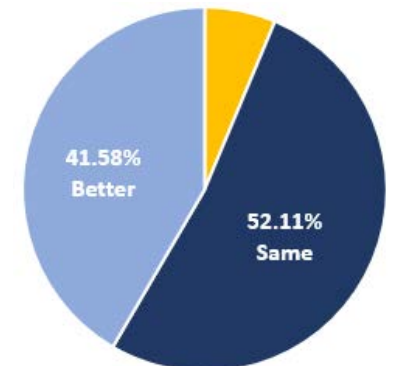
Effectiveness of Program Compared to Other Facilities 2021

5.26%
Not at all Confident



Compare your Drug Diversion Program to Other Facilities 2021

6.31%
Worse



What's Changed

The COVID-19 pandemic has created new challenges to drug diversion monitoring and mitigation activities. Nearly half (47%) of respondents to a question about COVID-19 and diversion said staff turnover made it more challenging to track drug diversion; 38% said resources for investigations were reallocated due to budget concerns; and 33% said they are more concerned about drug diversion given the distribution of the COVID-19 vaccine.

Healthcare organizations appear to have investigated fewer drug diversion cases in 2020-2021 than in 2018-2019, with 18% reporting that they investigated zero cases, compared with 8% in 2019. Data suggest investigations were also less efficient: Nearly half (48%) of respondents said 10% or less of drug diversion investigations resulted in a confirmed diversion — down from 37% in 2019. And only 13% of respondents said that more than half of drug diversion investigations resulted in a confirmed diversion — down from 23% in 2019.

This data aligns with the finding that healthcare organizations had slightly fewer full-time employees dedicated drug diversion programs and investigations, with 45% reporting at least one dedicated full-time employee, down from 58% in 2019.

A significant shift in prevention methodology in the last few years is the wider adoption of machine learning technologies to prevent drug diversion. The use of machine-learning software at healthcare sites increased from 29% in 2019 to 44% in 2021. Additionally, 73% of 2021 respondents rated machine learning as a 4 or 5 for effectiveness at preventing diversion, up from 65% in 2019.

Drug Diversion Perspectives by Job Function

Both surveys targeted healthcare executives from three areas: nursing/patient services, pharmaceutical operations, and drug diversion/investigation.

- In the 2019 and 2021 surveys, pharmacy operations was the highest survey group represented, accounting for 43% of respondents.
- In 2021, executives in nursing and Medical/Compliance accounted for a greater portion of respondents. We believe this shows that an effective diversion program is inclusive to all departments, not just pharmacy.

Perspectives: Extent of Drug Diversion Problem

Questions were designed to ascertain participants' opinions about the drug diversion issue as a whole, versus what they experience in their own facilities. Nearly all survey participants (98%) either agree or strongly agree that drug diversion is occurring in hospitals. That opinion is validated by research, news stories and industry experts alike. In fact, John Burke, president of the International Health Facility Diversion Association, estimates there are at least 37,000 diversion incidents occurring in U.S. facilities each year and even he says that his number is probably low.³

The elephant in the room is recognized by nearly everyone: Drug theft by employees is difficult to catch. Becker's Healthcare Review in 2021 estimated that 95% of drug diversion cases within hospitals remain investigated, due to a combination of organizational denial, ineffective monitoring, and competing projects taking up resources. Seventy-three percent of 2021 Porter Research survey participants agree or strongly agree that "most" drug diversion goes undetected, a number that has increased since the 2017 and 2019 surveys. Eighty-two percent of executives surveyed say they personally know someone that has diverted medications.

This is especially concerning given the additional challenges that have been levied upon the healthcare industry with the pandemic. Investigations are down, investigation efficiency is down, resources are tighter, and there are more new temporary hires than ever before, requiring additional resources to monitor and train.

Executives surveyed believe that drug diversion has a negative impact on quality of care. Equal percentages of participants from the surveys (97%+) agree that drug diversion puts patient safety at risk too. The Joint Commission concurs. In its April 2019 Quick Safety bulletin entitled "Drug Diversion and Impaired Healthcare Workers," the Joint Commission points out that risks for patients are multifaceted. "Risks to patients include inadequate pain relief and exposure to infectious disease from contaminated needles and drugs, compounded by potentially unsafe care."⁵

JOB FUNCTIONS	2019	2021
PHARMACY	43%	43%
DRUG DIVERSION SPECIALISTS	36%	20%
NURSING EXECUTIVES	9%	15%
EXECUTIVES	7%	11.5%

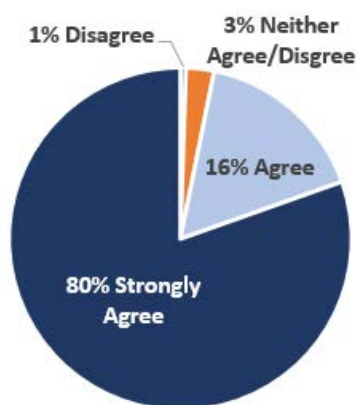
Key Takeaway

Just about every **healthcare executive who participated in the 2021 Porter Research survey agree that drug diversion is occurring in U.S. hospitals and a majority of these cases are not investigated.**

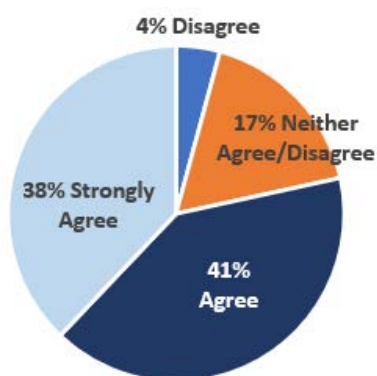
The Costs of Drug Diversion

Everyone — 100% of our 2021 survey participants — said that employee drug diversion negatively impacts quality of care and 96% say that drug diversion has an adverse impact on patient safety. Hospital executives also believe the high cost of drug diversion impacts more than just the clinical departments: 78% percent agreed or strongly agreed that employee drug diversion has a negative impact on finance and billing. Indeed, the estimated costs of diversion to public and private medical insurers exceeds \$72 billion per year, according to the Justice Department's National Drug Intelligence Center.⁶ Ninety-six percent also believe that diversion puts their organization's compliance with regulations at risk, not to mention the nightmare of bad public relations that often accompanies diversion incidents.

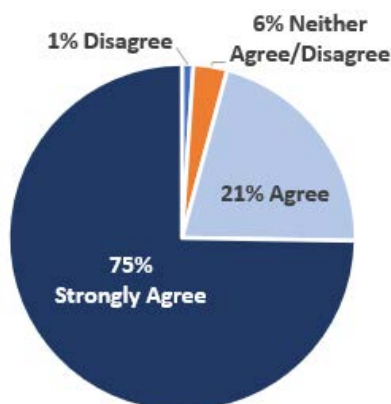
Drug Diversion Jeopardizes Compliance; Puts Organization at Risk



Drug Diversion Negatively Impacts Hospital Billing



Drug Diversion Jeopardizes Compliance; Puts Organization at Risk



Executives trust their organizations to handle drug diversion but admit most diversion goes undetected

While most participants say they at least somewhat trust their organization to identify individuals that divert drugs, about 73% say they believe that most diversion in the U.S. goes undetected in 2021.

Key Takeaway

7 in 10 survey participants believe that most incidents of drug diversion in the U.S. go undetected; whoever 55% are confident and 39% are very confident in the effectiveness of their drug diversion program.



Diversion Program Tools Currently in Use

We asked survey participants to share which diversion program tools their organizations use. Executives were able to pick any that apply from a list including:

	2017	2019	2021
Automated Dispensing Cabinets (ADC)	91%	89%	86%
Internal Audits	90%	87%	86%
Tips from co-workers	81%	84%	80%
ADC Reports (such as anomalous usage reports)	67%	78%	77%
Diversion Awareness Training	66%	75%	63%
Advanced Analytics	54%	59%	43%
Machine Learning	29%	29%	44%
Random Drug Screening	27%	28%	23%
None of the Above	0	0	.5%
Other	4%	6%	4%

Due to the COVID-19 pandemic, the quality and quantity of drug diversion programs across healthcare programs has been a mixed bag since 2019. As a whole, healthcare is doing less in 2021 than in 2019 to prevent or stop drug diversion. Since 2019, the use of ADC reports, internal audits, investigation tips, awareness training, and random drug screenings have all seen a slight dip in numbers.

What's more concerning is that organizations appear to be shifting resources away from advanced analytics. The usage of advanced analytics technology to detect statistical outliers in healthcare worker behavior dropped from 59% to 43%. This is surprising, because advanced analytics software can integrate data from multiple sources— dispensing cabinets, time-keeping systems, electronic medical records — to give a multi-dimensional view of drug diversion and uncover incidents much faster. What takes humans hours, or even days, to analyze can be done in a fraction of the time with the latest technologies.

Yet it is possible that the drop is due to the fact that respondents have invested more advanced technology. Machine learning, a form of artificial intelligence used to detect patterns in data, such as increases in certain behavioral actions or inconsistencies in pain management scores, saw a big jump in adoption from 29% in 2019 to 44% in 2021. There are organizations that appeared to have taken the next step forward in leveraging the latest cutting-edge technology to tackle the problem at their institutions.

Man vs. Machine: How Technology Can Help with Drug Diversion Detection

It is interesting to compare how participants say people who divert are actually caught versus what tools survey contributors think are effective. Right now, the majority of investigations are triggered by human activities, such as tips from co-workers, observations from management, or discovery of missing drugs.

Unfortunately, by the time healthcare supervisors discover someone is diverting, a lot of damage is already done. With the use of emerging technologies, the time to discovery will be shorter and more accurate, saving healthcare organizations from the cost of diversion, as well as the costs of false positive investigations.

We are also aware that a lack of staff to handle diversion detection programs may negatively impact outcomes: 74% of hospital responders reported that investigations take four or more hours to complete, while 42% said their organization has less than one full-time employee dedicated to drug-diversion. Adding technology solutions can help hospitals contain the costs of drug diversion programs, while producing better results.

Our survey participants agree, as more cited diversion-detection technologies as “effective” or “very effective,” including advanced analytics solutions (88%, up from 84% in 2019) and machine learning (73%, up from 65% in 2019).

Given the constraint on resources posed by COVID-19, it is even more important to adopt technology that can ease the investigation process, and ensure it is as efficient and effective as possible. The simple fact that 95% of drug diversion cases are not being investigated should be a wake-up call for organizations: Now is the time for action and solutions.

Taking Action

As drug diversion incidents continue to grow, it is imperative that all hospitals consider how they'll protect healthcare workers and patients, while avoiding financial and reputational damage. The surveys underscore the urgency of expanding drug diversion programs, reporting mechanisms, and other technologies.

Specifically, hospitals need to **more closely match resources dedicated to building diversion programs with the amount of time needed to complete investigations.** This problem can be approached from two angles: Expanding staff to increase FTEs dedicated to drug diversion detection and increasing the use of technology—machine learning, ADCs, advanced analytics and more—to cut time and enhance the accuracy of investigations.

Key Takeaway

Using **machine learning, advanced analytics and automated systems/reporting** can give hospitals a **better chance to catch healthcare workers** who divert before risky scenarios take place. Machine learning can also effectively **validate and support human solutions** by crunching data in near real-time and “learning” behavior patterns that can be applied **to make data more effective.**



Survey Methodology

200 healthcare employees participated in the survey. Survey participants included directors of pharmacy (43%), nursing executives (19%), compliance executives (28%) and drug diversion specialists (10%).

Endnotes:

1. Jennifer Barrett. "Prescription Drug Diversion an Issue at VA Hospitals." Pharmacy Times, March, 2017.
2. Definitive Healthcare, "How Many Hospitals Are In the U.S." February, 2019
3. Lilly Chappa. "The Dirty Secret of Drug Diversion" ASIS International, August, 2017.
4. Wendy Glauser. "Canadian Hospitals Not Doing Enough to Prevent Opioid Theft." Canadian Medical Association Journal, April, 2019.
5. Quick Safety Issue 48: Drug Diversion and the Impaired Healthcare Worker. April, 2019.
6. "Prescription for Peril: How Insurance Fraud Finances Theft and Abuse of Addictive Prescription Drugs," Coalition Against Insurance Fraud, December 2007