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Federal Response to the Opioid Crisis

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Abstract

Purpose of Review—In light of the current crisis in opioid involved overdose deaths, the federal Department of Health and Human Services operating divisions are working together to implement a data-driven, research-based strategy to reduce opioid misuse and its consequences.

Recent Findings—The strategy has five elements: (1) strengthening public health data collection and reporting; (2) advancing the practice of pain management; (3) improving access to addiction prevention, treatment, and recovery support services; (4) increasing availability of overdose-reversing drugs; and (5) supporting cutting-edge research in treatment of pain, opioid use disorder, and associated conditions.

Summary—The Department of Health and Human Services has developed a concerted, coordinated evidence-based effort across department divisions to reduce opioid misuse, prevalence of opioid use disorder, and reduce deaths due to opioid use.

Keywords

Opioid epidemic; Federal response; HIV

Introduction

In the USA in 2016, nearly 92 million people reported use of a prescription opioid, 11.5 million reported misuse, and 2.1 million met the criteria for an opioid use disorder (OUD)

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Compliance with Ethical Standards

Conflict of Interest Wilson Compton reports long-term stock holdings in General Electric, 3M Companies and Pfizer.

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[1••]. That same year, drug overdose fatalities claimed over 64,000 lives and the majority of deaths resulted from prescription or illicit opioids [2••].

There are two primary drivers of the current opioid crisis. The rise in opioid prescribing that began in the mid-to-late 1990s is first. Providers increased both the volume of opioid prescriptions for all indications and prescribed opioids for chronic pain conditions not likely to respond to opioid treatment [3•]. The second driver is the healthcare system's limitations in identifying and treating opioid use disorders. Estimates are that only 25% of people that meet diagnostic criteria for active OUD received treatment in that year [4].

The increase in opioid use disorder has occurred along with an increase in injection-related infections. Hospitalizations for endocarditis and osteomyelitis associated with opioid use increased significantly between 2002 and 2012 [5]. Rates of hepatitis C virus (HCV) infections have been rising since the mid-2000s [6, 7•]. After two decades of decline, HIV diagnoses among persons who inject drugs increased in 2015 [8•], and a local outbreak occurred in 2015 in Scott County, Indiana, with over 220 new cases of HIV and over 400 cases of HCV associated with opioid injection—indicators that many counties throughout the nation are at potential risk [9].

HHS Opioid Strategy

In April 2017, U.S. Department of Health and Human Services (HHS) launched its comprehensive Opioid Strategy. The HHS Opioid Strategy aims to:

1. Strengthen public health data reporting and collection to improve the timeliness and specificity of data and to inform a real-time public health response
2. Advance the practice of pain management to enable access to high-quality, evidence-based pain care that reduces the burden of pain while also reducing inappropriate use of opioids and related harms
3. Improve access to addiction prevention, treatment, and recovery support services
4. Target the availability and distribution of overdose-reversing drugs to ensure broad availability of these medications to people likely to experience or respond to an overdose
5. Support cutting-edge research to advance understanding of pain and addiction, lead to the development of new prevention interventions and treatments, and identify effective public health interventions to reduce opioid-related harms

The following sections describe current efforts to address these strategic aims within the federal government with an emphasis on activities supported by HHS headquarters and regional offices as well as by the Substance Abuse and Mental Health Services Administration (SAMSHA), the Centers for Disease Control and Prevention (CDC), and the National Institute on Drug Abuse (NIDA).

Surveillance

Surveillance is the cornerstone to effective public health action—including the opioid crisis. Public health surveillance allows practitioners to understand the magnitude and distribution

of overdoses, opioid use disorder, and related infectious disease and to monitor trends over time. Data can be used to understand trends in who is affected by opioids, monitor changes in use, distribution, methods of use or effects of opioid use, and to identify targets for intervention. Refer to Table 1 for a summary of select data sources used to monitor the opioid crisis.

The rapid evolution of the opioid crisis leads to a need for more timely data. Therefore, provisional counts of opioid-related deaths are being released with a 7-month delay compared to the previous lag of 18 months [2••]. Similarly, detailed information about fatal and non-fatal overdoses from states—including EMS data—is collected with a 6-month lag via CDC's Enhanced State Opioid Overdose Surveillance (ESOOS) program, and non-fatal data is readily displayed via CDC's syndromic surveillance platform known as ESSENCE [10, 11].

Some jurisdictions are seeking real-time data. For example, the Washington/Baltimore High Intensity Drug Trafficking Area (HIDTA) developed the OD Map tool building on and complementing work from SAMHSA [12, 13]. This smartphone application allows EMS providers and law enforcement personnel to flag an overdose and how many doses of naloxone were delivered. These data are geo-coded and allow public health and safety practitioners to view the data instantly on a map and mobilize a response if a spike occurs in a geographic area.

There continues to be a number of information gaps. For example, medical examiners/coroners reports are missing in about 22% of overdose deaths, limiting the ability to examine drug-specific causes in many jurisdictions [14]. For non-fatal overdoses, data on the administration of naloxone as well as more detailed toxicological information about specific substances detected (opioids and others) in emergency department patients are missing. Little is also known about current treatment outcomes and recovery trajectories. Given the promise of adapting the continuum of care model (used successfully in HIV treatment) to improve opioid treatment, better surveillance of engagement and outcomes is necessary [15•].

Advancing the Practice of Pain Management

An estimated 25 million Americans experience daily pain [16]. Pain can impact physical and mental health, productivity, and ability to engage in social activities. Sixty-three percent of people who report misusing pain medication claim that the primary reason is to alleviate pain [1••]. Recalibrating the role of opioid pain medications in pain care is a critical part of reducing opioid harms and improving the quality of life for patients living with pain. HHS activities in this area fall into two categories: (1) achieving a system of care in which all people receive appropriate, high quality and evidence-based care for pain and (2) providing clinicians and patients with education and tools to improve pain care.

One aspect of this work is to reduce inappropriate opioid prescribing. To this end, CDC developed and launched the CDC Guideline for Prescribing Opioids for Chronic Pain, for use outside of active cancer, palliative, and end of life care in March 2016 [17]. To maximize use of the Guideline, communication and translation tools and resources have

been developed and disseminated. Health systems have been encouraged to adopt the Guideline and payers have been identifying ways for policies to be consistent with the Guideline.

Many health professional schools have made a voluntary commitment to integrate the Guideline into their curricula. So far, more than 60 medical schools have announced they will align their existing curricula with recommendations contained in the CDC Guideline. Many nursing schools and physician assistant schools have indicated the same. More than 50 colleges and schools of pharmacy have pledged their commitment to educate their students about how to counsel patients and others on appropriate use of naloxone to reverse overdose.

Healthcare systems have the potential to improve pain management, including safer use of opioids, through guideline-concordant care on a broad scale. To achieve this, CDC created a clinical quality improvement initiative to develop health system processes that facilitate adoption of recommendations. For patients for whom the benefits of long-term opioid therapy outweigh the risks, the initiative includes a resource to implement structured and coordinated care. CDC is updating clinical decision supports to integrate recommendations into electronic health records such as alerts for morphine milligram equivalent thresholds, defaults on prescribing amounts for initiation of opioids, and prompts to check a state's prescription drug monitoring system. Efforts to reduce inappropriate prescribing may be having an effect because while rates of prescription opioid-related death are still high they are leveling off [18].

Improve Access to Addiction Prevention Treatment and Recovery Support

Community-Based Prevention—While most states are impacted by the opioid crisis, state and community-level differences require a tailored response. Moreover, states regulate the health professions, run prescription drug monitoring programs (PDMPs), house comprehensive substance use disorder prevention and treatment programs, maintain strong connections to local public health departments, administer large public insurance programs like Medicaid, and collect surveillance data.

HHS supports community-based prevention initiatives whose activities are customized to local needs and include universal, selective, and indicated interventions. Universal interventions target all members of a population, selective interventions target people who are at high risk, and indicated interventions address precursor behaviors such as reducing use for people who use opioids non-medically or obtaining treatment for people who have an opioid use disorder or have overdosed.

SAMSHA funds the Strategic Prevention Framework-Partnerships for Success program to support state's primary prevention activities to prevent prescription drug misuse among persons aged 12 to 25 years. The program is designed to raise awareness about the dangers of sharing medications and works with pharmaceutical and medical communities to address the risks of overprescribing to young adults. SAMSHA also collaborates with the Office of National Drug Control Strategy (ONDCP) to fund community-based substance use prevention coalitions that have diverse representation including youth, parents, local businesses, schools, religious organizations, health professionals, and others. One effective

approach being used in communities is the Strengthening Families Program 10–14, which has been shown in three population-based randomized trials to prevent the onset of prescription opioid misuse [19].

CDC launched the Overdose Prevention in States initiative in September 2016. A total of 45 states and Washington, D.C. are funded. This program is designed to support evidence-based practice through maximizing the use of PDMPs, implementing community, insurer, or health system interventions, evaluating whether policy changes are effective, and enhancing the quality and timeliness of surveillance data. For its part, SAMSHA is funding states to use PDMPs to identify high risk populations, patients, and clinicians for primary prevention program targeting.

Another way that HHS is supporting communities is by providing messages and tools to help educate the public about the dangers of opioids and their consequences. CDC launched a campaign in September 2017 to raise awareness about the risks of prescription opioid use. The campaign highlights stories of people in recovery or family members who have lost loved ones to opioids. This type of campaign proved cost-effective with regard to tobacco use [20]. SAMHSA funding is being used by states to develop media campaigns with two purposes. Some states have developed media campaigns aimed at reducing prescription drug misuse by adolescents and young adults. Other states have developed media campaigns to reduce the stigma of having an opioid use disorder and encourage people to seek treatment.

Syringe service programs are now an allowable cost, under certain circumstances, in block grants and some discretionary grants as a way to reduce harms such as transmission of infectious disease like HIV and HCV. Syringe services also serve as a central vehicle for distributing naloxone, engaging in discussions about addiction treatment, and linking people to care.

Strengthening the connection between public health and safety is another prevention aim of HHS. HHS is partnering with the Drug Enforcement Agency (DEA) in a program called DEA 360. This initiative includes coordinated law enforcement action, diversion control, and community outreach. CDC is also working with 8 HIDTAs in 20 states around the heroin response strategy to (1) coordinate data sharing across public health and law enforcement; (2) develop and support the implementation of evidence-based practice through pilot projects; and (3) strengthen engagement of local communities and promote the inclusion of those most affected by the epidemic when designing, planning, and implementing activities.

Treatment of Opioid Use Disorder—While medication (methadone, buprenorphine or injectable or implantable, extended release naltrexone) has been the standard of care for treating OUD [21], estimates for the number of people in medication assisted treatment are as low as 10% of those that need it [15•]. HHS treatment efforts target two reasons that people do not receive appropriate care. First is inadequate capacity; second is the nature of the disease which leads patients to resist care.

Attempts to increase capacity have focused on increasing the number of prescribers who are able to prescribe buprenorphine, the number of patients that prescribers are able to treat [22•], and the number of opioid treatment programs (OTPs) which are the only location where methadone can be dispensed. Regulations were eased to allow prescribing of buprenorphine by nurse practitioners and physician assistants in states where they are already authorized to prescribe schedule III medications and to allow physicians to treat up to 275 patients rather than the 100 patients that was the cap prior to 2016.

A concerted effort involving ONDCP and SAMHSA to recruit physicians in 15 high need states led to significant growth in the number of physicians capable of treating OUD with medication. However, many physicians treat very few patients. Seventy percent of prescribers with waivers are only waived at the 30 patients limit, and most serve far fewer than the number they are allowed to treat [23]. Research indicates that more physicians would prescribe if they had better access to psycho-social supports for their patients and if they had access to more experienced clinicians for guidance and support [24]. This knowledge has led HHS to provide greater post training support via coaching and continuing education both in person and using video conferencing technology. It has also led to greater use of telehealth to provide counseling, technology-assisted care such as mobile applications for recovery support, and greater efforts at integrating SUD treatment with the healthcare system by placement of counselors and recovery coaches in primary care, emergency, and other healthcare settings.

Several states (e.g., MA, VA, and AL) are investing federal grant dollars in developing capacity to provide treatment on demand in geographic areas where overdose rates are high. Treatment on demand involves rapid diagnosis, triage, and linkage to medication as well as psychosocial supports. Interim methadone and interim buprenorphine, where patients can receive medication without psychosocial support for a limited time, are being used in some locations so that patients are able to access medication even when psychosocial supports are not immediately available [25–27].

To address the issue of patients not seeking treatment, SAMHSA is encouraging states to adopt the seek, test, treat, retain (STTR) model that was effective for HIV containment. These activities involve peer coaches or other community health workers engaging people in emergency departments, in shelters, and in neighborhoods where drug use is prevalent. States and programs are being trained in chain-referral outreach to find people via their associates who may have entered treatment or been brought to an emergency department for an overdose or other drug related crisis and to conduct active outreach, to ensure that they have naloxone and access to clean syringes (for people who inject drugs), and to encourage people to enter treatment.

The opioid crisis in the USA that emerged over the past 15 years has provided new challenges to the public health community. Most notably, increasing overdose deaths (especially in the 2000–2010 period) were associated with prescription opioids [28, 29]. As a result, it was important to test whether the medical treatment of heroin-related opioid use disorder would apply to prescription opioid use disorder too. Weiss and colleagues demonstrated that buprenorphine treatment could be effective for prescription opioid use

disorders [30] and that longer-term retention in care was especially important for maximum benefit [31–33].

Recovery Support—People with opioid use disorder are availing themselves of recovery support services supported with SAMHSA funds. These services may include sober housing, peer coaching, employment and education preparation and linkages and a variety of health and wellness activities that improve a person’s overall health and well-being. Peer coaches are being deployed to hospitals and community settings to engage patients in a dialog about reducing risks and accessing treatment for their opioid use disorder [34]. These efforts have expanded in 2017 due to funding provided by the CURES Act [35].

Reversing Overdose—Naloxone is an opioid antagonist that can reverse respiratory depression associated with opioid overdose. It has been used for many years by healthcare providers and emergency medical services and increasingly is being used by non-EMS first responders and lay persons to reverse overdose in homes and community settings. Educating individuals on overdose prevention, including how to recognize and respond to an overdose and how to obtain and administer an opioid overdose reversal medication, is critical to the public health response to the opioid crisis. HHS activities in this area focus on (1) developing the auto-injector and nasal spray formulations recently approved by the U.S. Food and Drug Administration, (2) providing resources for local purchase of naloxone, and (3) providing education and tools on how to reverse an overdose. SAMHSA’s Opioid Overdose Prevention Toolkit equips local governments and community organizations with tools to develop policies and implement practices that are known to prevent opioid-related overdose and death. SAMHSA funds states to train first responders and provide naloxone kits to first responders and other community members, including people who use opioids non-medically. These grants cover expenses for naloxone kit distribution. Grantees are required to establish processes for linkage to treatment after overdose reversal.

Research on Reducing Risk and Preventing Infectious Diseases—At the peak of the HIV epidemic in the USA, about 25% of new infections were due to injection drug use (IDU). Over the subsequent two decades, IDU-associated HIV infections decreased dramatically. IDU-associated infection was the transmission category with the largest reduction in incidence during this time. At least four major factors led to these changes: access to sterile injection equipment through “syringe services programs” and pharmacies, education of persons who inject drugs (PWID) about the risk of sharing needles and other injection equipment, HIV testing, and antiretroviral therapy, which reduces viral load and risk of transmission to partners [36–40].

Key aspects to reducing the spread of HIV among PWID at the height of the HIV epidemic in the USA in the 1990s were engaging PWID personally in reducing their highest risk behaviors [41, 42, 43••] and connecting them into treatment for their OUD—especially medication-assisted treatment (e.g., Montaner 2014). Syringe service programs have been shown to decrease HIV and HCV incidence and increase by three times the chance that a person will stop using drugs. Injection drug use continues to be a major contributor to new cases of HIV globally [44]. In particular, comprehensive community-based programs that include syringe service programs; linkage to medication to treat opioid use disorder,

naloxone, and HIV; and viral hepatitis testing and treatment are likely to be particularly effective in the mutual goals of preventing overdose deaths, reducing substance use, and preventing infectious diseases.

An overarching framework for reducing HIV infection has been the “treatment as prevention” approach designed as a full “STTR” model [42, 45]. The components of this model include outreach (“seek”), to conduct widespread identification of HIV infection (“test”), and treatment of HIV-infected persons with highly active anti-retroviral medications (“treat”) over the long haul (“retain”). Ecological evidence has shown the value of treatment as prevention in population studies of PWID, especially when combined with medication assisted treatment for opioid use disorder as a means to reduce the underlying risk behavior [42, 43••]. Testing for HIV and viral hepatitis can be readily implemented in drug treatment settings and syringe services programs because it does not require specific risk-reduction counseling to be effective in diagnosis [46–48].

There is accumulating evidence that injection of prescription opioids has led to increased transmission of HIV and HCV among PWID, especially in rural areas [6, 7•, 9, 49]. Multiple federal partners are currently engaged in supporting research to address the opioid crisis and reducing adverse outcomes of injection opioid use in rural communities. For example, needs assessment grants were funded in October 2016 by NIDA and the Appalachian Regional Commission [50] to measure the local epidemiology of opioid injection drug use, overdose, and infectious disease consequences (including HIV and HCV) and to assess federal, state, and local infrastructure and policy that may facilitate or inhibit program and service improvements for remediating these concerns. A second round of grants was funded in August 2017 with support from NIDA, the Appalachian Regional Commission, CDC, and SAMHSA [51] to develop and test comprehensive, integrated approaches to prevent HIV and HCV infection, along with associated comorbidities such as hepatitis B virus infection and sexually transmitted diseases, among PWID in rural US communities. Eight research sites and a collaborative biospecimen testing center were funded [51]. The goal is to accelerate and implement research from these and related studies to address the full range of issues related to HIV and other infectious diseases caused by injection drug use in the context of the US opioid crisis (as well as injection drug-related behaviors with other drugs). Future research includes exploration of the predictors of response to medication assisted treatments, including genetic predictors [52].

Nationalizing the Strategy—Implementing the five elements of the HHS Opioid Strategy requires collaboration between HHS divisions and multisector stakeholders. HHS organizes programs by ten regions across the country. Each region is unique and considers demographic and public health variations to prioritize and focus collaborative decision making in its implementation of the HHS Opioid Strategy. Local familiarity with the issues and stakeholders is made possible by recurring engagements with state officials, tribal leaders, community organizations, and advocates who have geographic proximity in common.

Meetings, trainings, and community events support the implementation of a local strategy that includes the elements of the national strategy but is adapted to address local needs. Task

forces developed to create a cross-system approach to addressing the opioid crisis at a state and regional level involve HHS staff from many operating divisions and other departments. The aim of regional collaboration is to help stakeholders overcome barriers to improve public health, to reduce harm, and to ensure access to quality treatment and recovery support services.

A sample of regional activities includes the following:

1. Hosting state authorities from behavioral health, public health, Medicaid, and state managers of opioid grants with national experts on improving access to care
2. Convening dental schools, the American Dental Education Association, national experts, and colleagues from key professional organizations to advance better practices for pain management
3. Convening medical schools, the Addiction Medicine Foundation for Deans and Faculty, state behavioral health authorities, and others to advance better practices for pain management and to support the development of research on pain and addiction
4. Convening regional state authorities and leaders responsible for syringe services and harm reduction programs, SAMHSA, CDC, and the Harm Reduction Coalition to improve public health surveillance and access to treatment and recovery services
5. Developing an opioid overdose prevention collaborative for regional stakeholders with naloxone, syringe exchange, peer recovery, and pediatric research subgroups

Conclusion

In summary, implementing the HHS five-point opioid strategy is a cooperative, coordinated effort across HHS divisions, the 10 HHS regional offices and stakeholders from America's communities. Grants for states and organizations supplemented by training and technical assistance provide a strong foundation for nationalizing the strategy. The 10 HHS regional teams, in partnership with colleagues in government, foundations, associations, and academic institutions, foster progress toward implementing the strategy at a local level. By identifying emerging state, tribal and local needs, and developing trusting relationships, activities are tailored to address unique regional circumstances. Progress toward the HHS opioid strategy's goals is based on data driven decision making, using evidence-based prevention, intervention, and treatment programs within a multifaceted, collaborative approach.

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Table 1

Select surveillance systems for monitoring the opioid epidemic

Topic	Name and owner of system	Brief description
Fatal overdoses	National Vital Statistics System (NVSS) <i>CDC National Center for Health Statistics</i>	<ul style="list-style-type: none"> • Certified vital registration information on deaths using death certificates from medical examiners/coroners.
Fatal and non-fatal overdoses	Enhanced State Opioid Overdose Surveillance (ESOOS) <i>CDC National Center for Injury Prevention & Control</i>	<ul style="list-style-type: none"> • Syndromic surveillance system to detect sharp increases or decreases in non-fatal opioid overdoses at the state level using data from emergency department visits and/or EMS transports. Leverages the CDC National Syndromic Surveillance program and other state-based platforms. Some states capture naloxone administration. • Death certificates and medical examiner/coroner reports on risk factors for unintentional and undetermined opioid-related overdose deaths (e.g., route of administration, recent discharge for residential treatment or prison, recent arrest, recent relapse using opioid-related drugs, whether bystanders were present when the overdose occurred, mental health conditions, presence of adulterated drugs, and patterns in polysubstance drug use). Detailed toxicology information identifying the type of drug involved in death. Uses the State Unintentional Drug Overdose Reporting System (SUDORS).
Drug use	National Survey on Drug Use and Health (NSDUH) <i>Substance Use and Mental Health Services Administration (SAMSHA)</i>	<ul style="list-style-type: none"> • National survey of a representative sample of up to 70,000 household members 12 years or older that provides estimates of substance use in the USA conducted annually. Includes information on alcohol, tobacco and drug use, abuse and dependence, as well as demographic and other data.
Drug use in youth	Youth Risk Behavioral Surveillance System <i>Centers for Disease Control and Prevention</i>	<ul style="list-style-type: none"> • Conducts biannual, nationally representative surveys in high schools including use of alcohol, marijuana, prescription drugs, and injection drug use; many states conduct population-based surveys using the same or slightly modified data collection instruments.
Prescribing patterns	IMS Health <i>Quintiles</i>	<ul style="list-style-type: none"> • IMS Health provides estimates of the numbers of prescriptions dispensed in each state based on a sample of pharmacies, which dispense over 85% of retail prescriptions in the USA. Prescriptions, including refills, dispensed at retail pharmacies and paid for by commercial insurance, Medicaid, Medicare, or cash are available.
Prescribing patterns and medical claims	MarketScan <i>Truven Health Analytics</i>	<ul style="list-style-type: none"> • The MarketScan Multi-State Medicaid database is a weighted and nationally representative sample from 31 million enrollees from 11 geographically dispersed states and contains standardized, fully integrated, enrollee-level de-identified claims across inpatient, outpatient, and prescription drug services for both fee-for-services and capitation plans. • The MarketScan commercial claims database contain standardized, enrollee-level claim information across inpatient, outpatient, and prescription drug services and is weighted to be representative of the roughly 175 million people with employer-sponsored insurance in the USA. • Both the commercial claims and Medicaid databases include the following information on pharmaceutical claims: drug name, date dispensed, therapeutic class, national drug code, quantity dispensed, and days of supply.
Prescribing patterns	Prescription Behavioral Surveillance System (PBSS) <i>CDC, Food and Drug Administration, Bureau of Justice Assistance, Brandeis Center of Excellence on PDMPs</i>	<ul style="list-style-type: none"> • PBSS collects data from participating state Prescription Drug Monitoring Programs (PDMPs). PDMPs were originally created primarily as a tool for law enforcement to identify patients, prescribers, or dispensers engaged in illegal activities such as drug diversion. More recently, they became sources of information for prescribers on the prescription histories of their patients. • PBSS represents an additional use of PDMP data for public health surveillance. PBSS uses de-identified data from participating states' PDMPs to measure trends in controlled substance prescribing and dispensing as well as indicators of medical and non-medical use, diversion, and inappropriate prescribing and dispensing.
Drug distribution	Automation of Reports and Consolidated Orders System (ARCOS) <i>Drug Enforcement Agency</i>	<ul style="list-style-type: none"> • A mandatory reporting system that allows the US DEA to monitor certain controlled substances from the point of manufacture to the point of sale. ARCOS data represent the amount of controlled substances legitimately distributed at the retail level. The number of grams of each monitored substance distributed to pharmacies, practitioners, hospitals, teaching institutions, and narcotics treatment programs in each state is available.
Drug seizure	National Forensic Laboratory Information System (NFLIS) <i>Drug Enforcement Agency</i>	<ul style="list-style-type: none"> • Systematically collects drug identification results from drug cases submitted for analysis to forensic laboratories.

Topic	Name and owner of system	Brief description
HIV/AIDS	National HIV Surveillance System National HIV Behavioral Surveillance System <i>Centers for Disease Control and Prevention</i>	<ul style="list-style-type: none"> The National HIV Surveillance System systematically collects data and produces annual reports of HIV diagnoses, estimated HIV incidence, mortality, and other HIV indicators on national, state, and selected local jurisdictions levels, stratified by demographic and behavioral factors, including injection drug use. The National HIV Behavioral Surveillance System is conducted in > 20 cities with groups at high risk for HIV infection, alternating every third year among persons who inject drugs, heterosexuals, and men who have sex with men. This system collects demographic, behavioral, health care, and other information from participants.
Viral hepatitis	National Hepatitis Surveillance System <i>Centers for Disease Control and Prevention</i>	<ul style="list-style-type: none"> Routinely collects information from health departments regarding case reports of acute and chronic hepatitis B and C infection, as well as all cases of hepatitis A infection. The majority of cases of acute HCV infection in the nation are attributable to injection drug use.

Italicized text indicates the organization responsible for the data collection system