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Social and Structural Causes of Opioid Dependence in New York City

Executive Summary

Opioid analgesic prescription use has dramatically risen in the United States, resulting in addiction, drug-related crimes, and overdose deaths. In 2010 alone, enough opioids were prescribed by doctors to "medicate every American adult continually for a month".[1] In New York, Staten Island residents over 45 years of age were most likely to be overprescribed opioid medication by their physician - about a third of all prescription medication written in the borough is an opioid analgesic. This population will be examined for multi-pronged strategies, including:

- Primary care settings to address the issue of physicians as gatekeepers between the lay public and prescription medication. Harm-reduction education and Motivational Interviewing (MI) is suggested for both physicians and at-risk or addicted patients to address opioid diversion or "doctor shopping."
- Federal policy level interventions such as I-STOP, the Internet System for Tracking Overprescribing and the Patient Protection and Affordable Care Act (PPACA) - Physician Payments Sunshine Act will be discussed as they regulate opioid misuse and abuse.

Federal policies could work in collaboration with health education and MI open up a dialogue about prescription drug addiction and to shine greater transparency on to the relationships between physician prescribing practices and overdose rates, thereby allowing for a systematic and multi-faceted approach to reducing the opioid epidemic.

Introduction

Opioid analgesic medication use, in the form of prescription painkillers such as Vicodin, Percocet, and OxyContin, has been on the rise in New York City and the United States as a whole since the 1990's. [2] The dramatic rise of opioids can be linked to several factors, including forceful marketing campaigns by pharmaceutical companies; "doctor shopping" or diversion of the drug by patients who have prescriptions; social acceptance of opioids because they are prescribed by a doctor; physician overprescribing practices; and lack of governmental enforcement of overprescribing laws. This public health burden has affected both the opioid user and the public at large. For the user, problems include physical and mental addiction and ultimately, life lost due to opioid overdose; while the public at large is not immune to the epidemic, with a growing number of pharmacy counter robberies, illicit prescription sales, and home invasions – all in the addict's effort to receive the opioid medication.

In recent public comments, Dr. Thomas Frieden, Director of the Centers for Disease Control and Prevention and NYC Health Commissioner, said that addiction rates and overdose deaths related to prescription drugs is one of the nation's most critical health epidemics and "stopping the epidemic is everyone's business and can be done."[3] This paper will address this epidemic and discuss the structural and social causes of the public health problem in New York City, focusing mostly on the borough of Staten Island. Recommendations will be given to reduce the incidence and prevalence of this public health problem through both individual as well as policy level intervention strategies. Finally, the role of the Patient Protection and Affordable Care Act (PPACA) as it relates to the overprescribing of opioid analgesics will be assessed.

Social Determinants of Health Condition

In NYC, the number of drug overdose deaths, a majority of which are from prescription drugs, increased by 56 percent between 1999 and 2010, according the Trust for America's Health report.[4] In 1999, the drug overdose rate was 5 per 100,000, and by 2010 the rate was 7.8 per 100,000. Within the five boroughs, Staten Island ranks first as the borough with the highest rates of opioid use, abuse, and death. Recent NYC government data show Staten Island to have the highest rate of drug poisoning deaths (meaning mortality from all drugs, including opioid analgesics) at 10.2 per 100,000.[5]

Death, of course, is the worst case outcome when it comes to drug misuse and addiction; however, there is a wide range of consequences for prescription drug users as well as non-users to consider. For the opioid user, common side effects of prescription opioids are sleepiness, dizziness, nausea, vomiting, constipation, delayed gastric emptying, sleep apnea, muscle pain or rigidity, myoclonus (muscle twitch), anxiety, respiratory depression, irritability, hyperalgesia (increased sensitivity to pain), immunological and hormonal dysfunction, physical dependence and psychological addiction.[6] Emergency room departments see an average of 475,000 visits a year due to opioid misuse, and over 70,0000 children a year go to the emergency room due to accidental ingesting of an adult's prescription medication.[7]

Along with direct physical and psychological effects to the user, the non-drug using population has seen the cost of addict behavior. In Staten Island, New York, consequences of this epidemic include robberies at pharmacy counters, patients faking MRI results in an effort to show their doctors how much they need medication, forged prescriptions, home invasions and robberies, and the illegal sale of opioids (up to $30 a pill, depending on dosage) in parking lots.[8]

The prevalence of opioid sales is driven largely by pharmaceutical companies who produce brand name painkillers. One such company in particular is Purdue Pharma L.P., who created and manufactures OxyContin, a painkiller developed for acute as well as chronic, non-cancer-related malignant pain. Clinical research data show that maximum strength opioids such as OxyContin are effective at treating acute pain, however, the efficacy in treating and maintaining chronic pain is unclear. The effectiveness of the drug in treating malignant back pain, for example, has shown that positive longer-term physical functioning and pain relief effects are indeterminate.[9]

Nonetheless, pharmaceutical representatives heavily promoted the sale and distribution of OxyContin, targeting physicians who were known heavy- or over-prescribers of opioids. These prescribers were located by Purdue Pharma L.P. using geographical and sales data by zip code, then shown stewardship through gifts, such as C.D.s entitled "Get in the Swing with OxyContin;" free conferences to exotic locations; and other monetary incentives. Physician prescribing behavior has been shown to be positively linked to higher prescription rates as a result of these incentives, even though physicians do not believe that his or her behavior is altered. [10] OxyContin's hard-hitting, multi-faceted marketing campaign led to a tenfold increase of the drug from 1997 to 2002. 670,000 prescriptions were filled in 1997 and the number went up dramatically to 6.2 million prescriptions filled in 2002. Overdose death rates have been shown to be proportional to prescribing rates.[11]

"Doctor shopping," or receiving care from multiple doctors in order to get numerous prescriptions, is one factor to consider in increased drug use or drug diversion (the giving or selling of prescription medication by the original, intended user to a non-intended user, usually for non-medical, recreational purposes). Patients who "doctor shop" obtain opioid prescriptions

from a large number of prescribers. These patients could be responsible for opioid diversion, believing that the risk of taking a prescribed medication is not at all equivalent to illicit drug use and thereby giving or selling their painkillers to friends, family, or acquaintances. One 2008 study that examined opioid users who utilized retail pharmacies, one out of every 143 patients got their opioid prescriptions from a large number of doctors.[12, 13] Out of that small number of patients who got their prescriptions from multiple sources, an average of 32 prescriptions were written by 10 physicians. There is no way to account for the number of pills that were diverted by these customers, but common sense allows for the estimation of these numbers to determine outcomes such as diversion, increased drug use and addiction.

The public health burden of opioid addiction and death is driven by pharmaceutical companies interested in making a profit, in combination with doctors overprescribing this medication. Reduction of societal stigma in using legal prescription painkillers has made the drug both easier to obtain and less shameful to take than an illegal street drug, such as heroin or cocaine. It is for these structural and social reasons that the rate of overdose death due to opioid prescription medication increased by 124% between 1999 and 2007.[14]

Specified Population and Social Conditions

In 2011, Staten Island (SI) had the most residents who filled opioid analgesic prescriptions (131 per 1,000 as opposed to about 100 per 1,000 in the Bronx and Manhattan).[15] Females filled slightly more prescriptions than men for opioid analgesics at 57%. New Yorkers age 45-54 fill more prescriptions in general than do those under 44 (139 per 1,000 versus 65 per 1,000, respectively) and those in the 45 and over age bracket received a larger supply of opioids that those under age 45 (22 day supply versus 15 day supply, respectively). Individuals aged 45

and above are a greater risk in becoming addicted to opioid analgesics, and Staten Island has an increasingly older population, which could potentially account for some of the high rates of opioid use, abuse, and death in SI over any other New York City borough.

Rising death rates due to opioid analgesic poisoning largely matched opioid pharmaceutical sales.[16, 17] While the median day supply prescribed to all borough residents increased between 2008 and 2011, Staten Island residents received the highest median supply at a 25-day prescription, whereas borough residents in the Bronx, Queens, and Brooklyn received a 15-day supply and only a 10-day supply in Manhattan.[18] Therefore, SI residents aged 45 and over will be targeted for this intervention.

Staten Island (SI) Living Conditions

Staten Island residents are mostly working- and middle- class; professions such as construction workers, police officers, and firemen are heavily represented. [19] The maritime services sector at the New York Container Terminal has already seen a 26% job growth from 2004 to 2006, and is expected to employ more workers in the coming years.[20] These professions are physically taxing and have a substantial potential for on-the-job injury. Additionally, most employees of the state, such as firemen, or union laborers (such as construction workers) receive health care coverage through their insurance plans. In fact, 92% of union workers receive health insurance benefits.[21] This allows for a greater flexibility and choice in physicians (perhaps contributing to “doctor shopping” for painkillers) as well as prescription coverage (perhaps giving the go-ahead for doctors to write prescriptions with less discrimination, knowing that the cost burden will be diverted to the insurance company, rather than the patient).

High potential for on-the-job injury, along with physician prescribing practices, may

play a role in increased opioid analgesic abuse. Liu et al.'s study analyzed over 13 million opioid prescriptions and diagnoses in commercially insured patients in 2009.[22] The following three factors were examined to measure for inappropriate prescription practices and potential patient misuse: overlapping opioid prescriptions; prescriptions written for acute pain (the American College of Occupational and Environmental Medicine only recommends a 2-week prescription for severe acute lower back pain[23], while the New York City Department of Health recommends a 7-day prescription for acute pain, back-related or not[24]); and "opioid-naïve" prescriptions (patients who have not self-identified as using an opioid for at least 60 days, if ever). Liu et al. found that about a quarter of the patients analyzed had one indicator of potential misuse, while 5% had two or more indicators. While many of these prescriptions were appropriately written for those with unmanageable pain conditions, physicians could benefit from increased knowledge about prescribing guidelines as well as participation in state drug monitoring programs that tracks controlled substance narcotics in order to assure that those patients with potentials for misuse or abuse, such as those patients who need pain relief for chronic injuries, do not receive more than the needed amount of opioid analgesics.

Social and Physical Environments and Policies

Doctors are the gatekeepers between the lay public and the pharmaceutical companies, and for this reason, primary care physician offices are the chosen settings for this intervention. In 2009, doctors on Staten Island (SI), New York, wrote a total of 580,000 prescriptions for SI residents. Out of those, 115,000 prescriptions were written for the painkiller oxycodone and 96,306 prescriptions were written for the painkiller hydrocodone.[25] These statistics signify that a third of all prescription medication written and filled in SI is an opioid analgesic.

Whether a user obtains prescription medication through legal, formal means such as a prescription from their primary care physician, or through illegal means such as diversion, it is clear that doctors are the main gatekeepers between pharmaceuticals and the population that consumes them. Without physicians linking their patients to painkillers through their prescription pads, the availability of the drug would be significantly impacted, if not altogether eliminated. Therefore, this section will examine primary health care settings as the place that facilitates drug consumption behavior, or alternatively, a place that can enable both prevention and intervention opportunities for prescription opioid abuse and addiction.

Social and Physical Environment: Challenges and Opportunities

Primary care physician's offices can present significant opportunities as a setting for intervention to take place. As the point of comprehensive, "first contact" with the patient, the primary care physician has a tremendous amount of opportunity to provide the patient with health promotion, counseling, or education.[26] Both acute and chronic afflictions can be monitored and supervised by the primary care physician in his or her office, with the benefit of having both the patient and the doctor as each other's captive audience, allowing for a potentially greater ability to express concerns. Due to the level of privacy in the primary care physician office space, which are often even more quiet and removed from other patients than Emergency Rooms (ER) or community health centers, doctors could use this space to gauge potential misuse or addiction of opioids.

While physician offices can be valuable settings for interventions to take place, they can pose some challenges as well. Under President Obama's Patient Protection and Affordable Care Act (PPACA), insurer parity will be enhanced to cover not only physical health, but mental

illness such as addiction. [27] Now one of the top ten essential and therefore, mandatory services, treatment for substance abuse will be covered in the new marketplaces. This new regulation could enhance primary care provider's desire to spend more time discussing issues such as substance abuse and addiction. However, as the PPACA is still relatively new, and there has not been time to see what these changes will bring. Therefore, unforeseen challenges can occur with the new mental health care law.

Another challenge in the primary health care setting could be that there is a shortage of primary care doctors now.[28] While subspecialty fields such as anesthesia flourish, primary care doctors attract less medical students and fewer residencies due to less pay and more bureaucracy. This could pose a challenge simply because there will be fewer primary care facilities for patients to visit and more waiting time once they get there. More waiting time can be a significant discouragement in determining whether or not a patient will even make an appointment with their primary care physician, or whether they will choose the ER or a specialist instead.

The final obstacle to consider would be resistance by primary care providers to take on an addicted patient. General practitioners are sometimes wary of taking on drug misusers or abusers as their patients.[29] There is a perception among these reluctant GPs that addiction prevention and education takes too much time within the primary care setting. Time that cannot be reimbursed is not time well spent; therefore, many physicians may be unenthusiastic in attempting to provide this service to their patients. Additionally, it is important to note that this setting will not reach those who do not have insurance and are unable to visit their GP.

Multi-Level Interventions for Decreasing Opioid Abuse

There are several strategies for healthcare providers and regulatory authorities to use as intervention tools for people addicted to prescription painkillers in order to reduce the public health burden of opioid dependence. In general, intervention strategies can be categorized into four sub-groups that include educational, managerial, financial, and regulatory.[30] Educational intervention strategies can be considered either individual or community level (based on the source or provider of educational information) and are used with both healthcare providers who receive continuing education on prescribing guidelines and best practices for medication distribution, and for patients who may be at risk for or have already developed an addiction to prescription medications. Managerial, financial, and policy strategies are used in a healthcare management capacity in an attempt to control access to prescription medications. In controlling access, the intervention strategy can also be viewed as a prevention strategy, as the main goal is to prevent access to prescription medications by legal means, which will in effect dissuade some people from developing an addiction. For the next section, individual level educational strategies aimed at both patient and doctor will be discussed, as well as policy level strategies aimed at controlling access to addictive prescription medication.

Contributing factors to the prescription drug epidemic include patients misusing and abusing prescription drugs prescribed for legitimate purposes, patients seeking opioids from physicians for illicit reasons, and physicians and other prescribing healthcare providers over-prescribing medications to patients.[31] General practitioners may over-prescribe for multiple reasons, ranging from a steady stream of marketing from pharmaceutical companies, lack of understanding about addiction or knowledge of signs of patient drug misuse, or an absence of data of patient drug history. Therefore, the individual level educational intervention for both

patient and doctor will be addressed, along with policy level intervention aimed at illuminating doctor knowledge of patient drug histories and reducing the influence of pharmaceutical companies on doctor prescribing practices. Addiction is not created in a vacuum, rather, multiple factors intermingle with one another to determine whether an individual will use, misuse, or abuse a substance such as painkillers. Thus, intervention strategies must be addressed across the spectrum of addiction causes for significant and lasting impact.

Individual Level Intervention Strategy

Motivational interviewing (MI) that provides education and empowerment to patients can have a positive effect on people at-risk or addicted to drugs in helping them to quit or seek rehabilitation.[32,33] Motivational interviews are patient- and solution-centered approaches to strengthen the motivation for change in an empathetic and supportive setting, such as a private practice physician office. While this technique can be geared toward the patient, MIs can also be targeted towards General practitioners (GP) in primary care settings to encourage the doctor to discuss and review potentially uncomfortable topics such as drug misuse and addiction with their at-risk patients. As already noted, Staten Island residents filled opioid analgesic prescriptions at a much higher rate than their neighbors in other NYC boroughs, and since this data was tracked through the NYC Department of Health and Mental Hygiene, it is safe to assume that the prescriptions represented are being written legally by doctors.[34] Therefore, motivational interviews conducted in primary care offices are an individual level intervention that can have a significant impact on reducing the public health burden of opioid addiction in Staten Island, as most opioids are obtained within that setting.

When aimed at patients, healthcare providers are encouraged to use MI to engage the patient in a non-judgmental way as to elicit positive outcomes, being careful not to engage in any confrontational behavior or language that may cause the patient to become defensive and resistant to change. MI is used to increase compliance and reduce the health risk of patients.[35] The doctor usually begins by exploring the patient's motivation for ambivalence. As the patient confides in the doctor, he or she is not told what they should or should not do; rather, the doctor invokes the patient's own words and ideas in response to their health issue. The negatives of the patient's health situation are usually explored in detail with an aim at a growing awareness on the part of the patient to the negative effects of the behavior on their life. By seeing the negative effects on their life, the reasoning is that the patient will then take steps to change that particular behavior.

Data support that when MI tactics are used with drug addicted patients, there is an improvement in the number of patients seeking treatment. According to Bernstein et al.'s 2005 study, there was greater improvement in patients seeking treatment and reducing the use of illicit drugs after a motivational interview. This approach saw a 29 percent reduction of cocaine use of patients who use cocaine versus only a 4 percent reduction for the control group that did not engage in motivational interviews.[36] In another published study on MI effects on opiate addicts, a single hour-long MI session proved to be an effective means of intervention when used in conjunction with a methadone program.[37] Compliance to methadone was shown to be significantly higher in the group exposed to MI versus the control group, as was an upsurge in the desire to discontinue use. If a positive association in behavior is shown after just one hour of MI, perhaps continued brief MI sessions within a primary care setting would prove even more effective at increasing self-efficacy to reduce prescription opioid use.

In a recent UK study, researchers examined changing general practitioner behavior to better provide support to patients who are known or suspected misusers of prescription medication.[38] GPs were found to be disinclined to engage in administering care or discussing addictive behavior with opiate misusers. If GPs are so reluctant to take on any clients that are known misusers or addicts, then perhaps one can surmise that this behavior can spill over into GPs hesitating to discuss addictive behavior or addiction treatment options with current patients, which can contribute to misuse by naïve patients or perceived inability to discontinue use by the already addicted patient.

Policy Level Intervention Strategy

Individual level interventions could be used in conjunction with policy level interventions to address public harm, such as addiction, on a structural scale. In NYC, data show that New Yorkers who filled an opioid prescription increased from 2008 to 2011 by 19 percent. Staten Island (SI) ranks first as the borough with the highest rates of opioid use, abuse, and deaths. SI has the highest rate of people who filled opioid analgesic prescriptions with 131 per 1,000 as opposed to about 100 per 1,000 in the Bronx and Manhattan. SI also has the highest rate of drug poisoning deaths at a rate of 10.2 per 100,000 residents. [39] There is a clearly a link between the prescription medication overdose death rates and the amount of medication that is commonly prescribed to patients. While this level of intervention is not directly targeting middle-aged whites from Staten Island who are at the greater risk for addiction, policy reform can have a significant impact on all New Yorkers (in fact, all Americans) as a whole.

Federal and state health authorities have begun to take steps to provide more regulatory reform to control access to prescription painkillers. This year the Federal Drug Administration

(FDA) announced it was shifting policies related to prescription painkillers to put in place tighter restrictions on physicians.[40] In New York, the State Health Department had established guidelines for medical providers who prescribe these medications and are now requiring physicians to track prescriptions in real time with a statewide database called I-STOP, the Internet System for Tracking Over-Prescribing.[41]

The database will allow other healthcare providers, pharmacies, as health officials to collect and analyze patient data. The data can be used to identify and intervene with providers who are overprescribing medications, and patients who are "doctor shopping." While this act is still too new to reap any measurable results, I-STOP is eliciting mixed attitudes from government and health officials. Attorney General Eric Schneiderman publically lauded the act, stating that I-STOP has already reduced the amount of illegally sold prescription drugs on the street, while Dr. Sam Unterricht, President of the Medical Society of the State of New York, has negatively critiqued the act, believing that the electronic paperwork associated with I-STOP will prove to be arduous to doctors.[42] The long-term impact of such federal laws is yet to be determined.

Policy level intervention, such as prescription drug tracking systems, if used in conjunction with individual level interventions, such as MI and increased education about opioid harm reduction for both doctors and patients, can potentially serve as effective strategies in the reduction of prescription painkiller misuse and death. The new drug tracking laws are generally well received by lawmakers, professional medical societies, and health care providers as a positive step in reducing the prevalence of prescription drugs in the community. However, the initial need for these new laws indicates that there has been a lack of monitoring of patients who seek multiple prescriptions and providers who write multiple prescriptions over the last decade when overdose rates have skyrocketed. Therefore, direct interventions such as MI and continuing

education for both doctor and patient in the setting of the physicians' office could have an impact on limiting overprescribing of pills and "doctor shopping."

Recommendations

With such a multi-faceted problem as addiction, both operational and political forces can have an unwanted impact on achieving desired solutions. Operational obstacles within primary care settings can range from unwillingness of physicians to engage in interactions with at-risk or active addicts to limited availability of doctor or office staff. Additionally, for those patients who do not have insurance, have physical mobility problems or limited access to transportation, care can be difficult to access. Therefore, the recommendations within primary care settings will not reach a significant population – those without health insurance.

Additionally, political structures and governmental laws greatly determine availability of prescription drugs and deserve further examination. In many states, including New York, health care providers are now required to report data related to prescribed controlled substance medications. A new rule that became effective in August 2013 requires most providers in the State of New York to consult the online Prescription Monitoring Program Registry operated by the Health Commerce System when prescribing medications such as painkillers.[43] The intent of the new laws is to allow health care providers to evaluate a patient's past and current prescriptions and prevent "doctor shopping." The laws also allow government regulators to evaluate prescribing habits of providers to identify those that may be over-prescribing medications.

New York State has taken steps to end overprescribing of narcotic medications by implementing I-STOP, the Internet System for Tracking Over Prescribing.[44] Regulatory systems

such as these can help physicians track patient histories and the prescriptions that they have already filled, even if they were written by other doctors. However, not everybody who uses or abuses prescription pain medication obtains it directly from their doctor. Friends and family with prescriptions are often sources for opioid users supply. Therefore, regulations such as I-STOP can prevent "doctor shopping," but they cannot capture data from users of other people's prescriptions. Multi-faceted interventions should include screening tools to be used by physicians and pharmacists as well as increased monitoring of pills taken by the intended recipients. [45]

In many ways, political obstacles and non-compliance of the regulations are already being addressed with the implementation of the Physician Payments Sunshine Act, a key federal law within the Patient Protection and Affordable Care Act (PPACA).[46,47,48,49,50] This act requires pharmaceutical companies and other producers of biologics to release all "transfers of value" that are given to physicians.[51] Pharmaceutical companies will now be mandated to report gifts or money over and above $10 per occasion or $100 per year as well as the physician's full name and the reason for the gift. Increasing an open stream of information will be an important policy in reducing the influence of pharmaceutical companies over physicians and the medication they distribute to their patients. By compelling pharmaceutical companies to provide inclusive reporting of these monetary transfers, physicians can have a greater understanding of their role in overprescribing. In turn, since this information can also have an effect on patients by shifting their view of their physician's credibility, it could potentially reduce the amount of patients that visit these physicians. However, if this information is not readily accessible by the public, or if patients are not proactive in seeking it out, then the transparency provided will have limited effect. Patients could also not care or give limited consideration to such information, further limiting its effect on both physicians and pharmaceutical companies.

This act could work in conjunction with new physician tracking laws, such as I-STOP, to shine greater transparency on to the relationships between physician prescribing practices and vacations or monetary gifts presented by pharmaceutical companies. By allowing greater clarity for the public (and physicians themselves) to see how these relationships can translate into overprescribing, perhaps the solution to this problem will be evident as well.

Key Assets

The population for this intervention is adults 45 and over in Staten Island, while the setting is located within primary care physician's offices in the NYC borough. Key assets to examine would be the physical setting of the physician's office as well as office staff. Primary care offices are private, quieter than Emergency Rooms and community health centers, and therefore potentially more likely to be a good access point for patients who are both at risk for opioid addiction and those who are already addicted. The privacy and one-on-one relationship between doctor and patient could be beneficial if time is available to discuss such issues. A set of questions could be asked by physicians to determine their patient's risk. If the patients are regulars within a long-standing office, medical history can be regularly assessed and risk continually agreed upon. Urine screens can be taken to conclude previous drug use and enhance patient monitoring.

As addiction is a problem that needs a multi-pronged solution, legislation should be examined as a key asset as well. The PPACA will be the key asset in improving the state of addiction in the United States today. With insurer parity covering mental illness in the same way as physical illness, physicians can have greater financial incentive to spend time getting to know their patients and the potential problems the patients could encounter with opioids. Additionally,

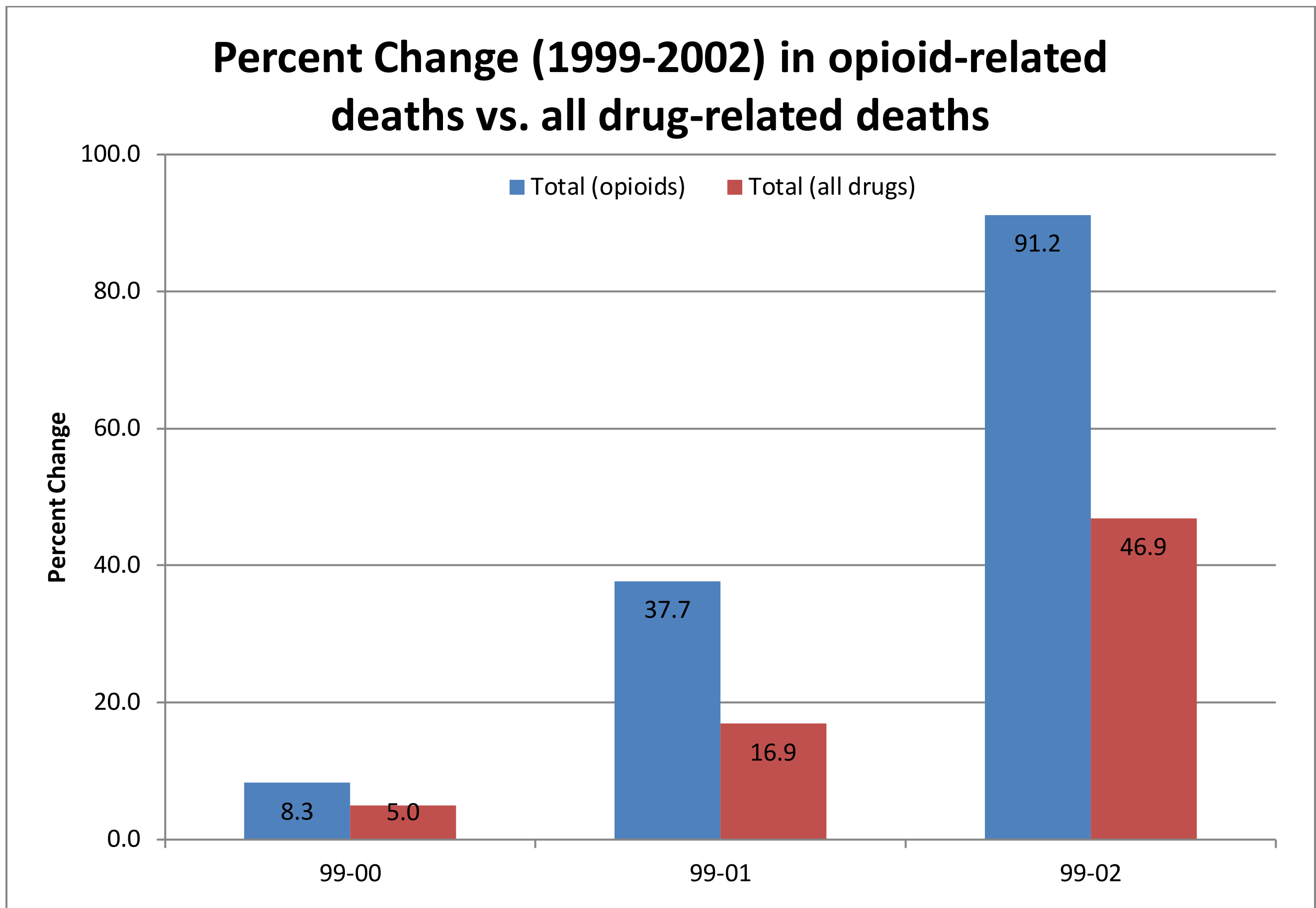
the Physician Payments Sunshine Act will shine a light of transparency between the relationship between physicians and pharmaceutical companies.

Limitations

Motivational interviews (MI) can be an effective intervention strategy to help patients who are addicted to prescription painkillers, especially when used along with other resources, such as methadone treatment and enhanced physician interaction. However, when considering MI in practitioner-targeted interventions, public health officials should be aware of the deeply ingrained stigma surrounding opiate misuse and addiction in the very population that is supposed to provide care. Motivational interviews rely heavily on the trust between physician and patient, and if the trust is not established due to preconceived notions about addicts or if established trust is somehow breached, the motivational interview has less of a chance of being successful.[52] Another consideration in this strategy is the lack of access to treatment and rehabilitation services for patients, especially those without insurance, with plans that cover in-patient treatment, and those with limited access to funds to pay for services out-of-pocket. The desire to quit using drugs may be derailed by an inability to obtain services. Therefore, MI can be a good starting point to open up conversations about drug misuse and addiction, but should not be used as a stand-alone prevention strategy.

Policy reform, on the other hand, cuts across the barriers of patient and doctor interaction but still pose some problems in implementation. While the federal government and many state and local health departments have established some policy reform, much more is needed. Reforms can have a positive impact on the medical industry by re-educating physicians about the dangers of over-prescribing and by providing concrete guidelines for proper prescribing

procedures. Prescription drug monitoring databases will help healthcare providers and pharmacies to manage the drug intake of prescription medication, which can serve as an intervention tool for patients. However, unless the data can be easily accessed and shared by all providers, and if the regulatory bodies fail to keep information up-to-date, patients may find ways to circumvent the newly established policies and regulatory reforms.



(Data courtesy of CDC 2011)

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