



Ensuring Safe and Appropriate Prescription Painkiller Use: The Important Role of Community Health Plans

Executive Summary

The Issue

Prescription drug misuse, particularly misuse of opioid painkillers, is a growing public health problem. In 2009, more than 15,000 Americans died from prescription opioid misuse, four times more than in 1999 and exceeding the total number of deaths involving heroin and cocaine combined. The number of opioid prescriptions filled has increased 68 percent over this same time period, from 120 million to 202 million. In fact, the Centers for Disease Control and Prevention estimates that enough opioids were sold in 2010 to give every American adult a 5-milligram Vicodin tablet every four hours for a month.

The opioid epidemic has high costs for patients, families, communities and the health care system. Misuse of opioids can lead to drowsiness, mental confusion and nausea, which are often obstacles to engaging patients in non-opioid pain treatments, such as physical therapy. Misuse can also lead to life-threatening side effects: Between 2004 and 2010, emergency department visits involving prescription pain reliever misuse increased more than 150 percent.

Societal costs from inappropriate opioid use are substantial. These increased costs to health care, workplaces and the criminal justice system are estimated to have exceeded \$55 billion in 2007 alone. Opioid misuse and diversion* costs health insurers up to \$72.5 billion a year, including up to \$24.9 billion in costs for private insurers.

* Diversion is the use of legal drugs for illegal purposes, or the use of prescription drugs for recreational purposes.

Table of Contents

Introduction	3
Scope of the Issue.....	4
Ensuring Safe and Appropriate Opioid Use: The Role of Health Plans.....	6
Building Community Partnerships.....	6
<i>CareOregon, UCare and Independent Health</i>	
Patient-Centered Pain Care.....	9
<i>Group Health Cooperative and HealthPartners</i>	
Engaging Providers	12
<i>Kaiser Permanente of Southern California, UPMC Health Plan and Group Health Cooperative of South Central Wisconsin</i>	
Managing Covered Medications.....	14
<i>Presbyterian Health Plan</i>	
Using Data to Identify Patients, Prescribers and Pharmacists for Outreach	15
<i>Capital Health Plan, Fallon Community Health Plan, Geisinger Health Plan, Martin’s Point Health Care, Priority Health, Tufts Health Plan and Scott & White Health Plan</i>	
Future Steps.....	17
Conclusion.....	19
References	20

Health Plan Initiatives

As the prevalence of opioid misuse grows, many community health plans are taking action to address the problem and encourage the safe and appropriate use of this class of medications. Recognizing the personal and financial burden that opioid misuse can cause, members of the Alliance of Community Health Plans (ACHP) – 22 community-based, not-for-profit health plans and provider groups – developed initiatives to ensure that their members have appropriate access to safe and effective pain management, while working to limit the risk of opioid misuse or dependence.

ACHP found that plans are addressing opioid misuse through a combination of approaches including partnering with community stakeholders; ensuring patients' access to personalized care; engaging providers around evidence-based guidelines; modifying health plan benefits to encourage safe use of painkillers; and using data to identify patients, provider and pharmacists for outreach.

Through these efforts, ACHP members have reduced the number of patients on high doses of dependence-prone narcotics and helped ensure patients' access to safe and necessary pain management, including non-narcotic approaches to pain treatment.

Specifically, this brief examines how:

- CareOregon, UCare and Independent Health collaborate with community partners;
- Group Health Cooperative and HealthPartners develop individualized care plans for patients that are stored in the electronic medical record for easy access by all providers;
- Kaiser Permanente of Southern California and UPMC Health Plan encourage providers to adopt evidence-based prescribing guidelines;
- Presbyterian Health Plan works with pain specialists to transition patients off OxyContin; and
- many plans, including Capital Health Plan, Fallon Community Health Plan, Geisinger Health Plan, Martin's Point Health Care, Priority Health, Tufts Health Plan and Scott & White Health Plan use data to identify patients, prescribers and pharmacists for outreach.

Future Steps

This brief outlines three future steps that ACHP believes would improve the quality of pain care and ensure appropriate and safe use of opioids. These are:

- strengthening state Prescription Drug Monitoring Programs, with active roles for pharmacists and physicians, and capabilities for data sharing across state lines;
- improving provider and patient education programs, drawing on evidence-based practices; and
- expanding concurrent and retrospective drug utilization review programs, while reducing the burden on patients who take medications appropriately.

An electronic copy of this brief, longer profiles on specific health plans' opioid initiatives, a one-page fact sheet on opioid misuse and health plans' interventions and other resources on ACHP member plan innovations are available at www.achp.org or by emailing innovations@achp.org.

Introduction

Prescription drug misuse is a growing public health challenge. In particular, the misuse of opioids, powerful painkillers that when misused can lead to addiction, overdose and death, has become one of the fastest growing drug problems in the United States.¹ Health plans, employers, providers, policymakers, patient advocates, pharmaceutical manufacturers and others are working to address this growing problem.

The number of opioid prescriptions filled in the United States has been rapidly increasing over the past two decades – from 76 million in 1991, to 120 million in 1999 and 210 million in 2010 (see Figure 1).² In fact, the Centers for Disease Control and Prevention estimates that enough opioids were sold in 2010 to give every American adult a 5-milligram Vicodin tablet every four hours for a month.³ Changes in our understanding of the best ways to help people with pain suggest we can decrease the role of opioids while offering healthier and safer care for those affected by painful conditions.

Early responses to this growing problem include the implementation of federal and state policies to combat opioid and other prescription drug misuse. However, ACHP recognizes that some of these efforts may have the unintended consequence of limiting prescription drug access for patients who can benefit from safe and effective management of pain with opioids. It is essential to recognize that for the right patients, opioids are an important part of high-quality care; yet at the same time, in the wrong circumstances, they pose an unacceptable risk.

Concerned about the impact of opioid misuse on their members and communities, many community health plans are taking action to curb misuse of these medications by engaging patients, providers and communities, using their data resources, and managing drug formularies. ACHP member organizations have been at the forefront of implementing innovative initiatives to promote safe and appropriate opioid use. In addition, through the ACHP Pharmacy Directors Collaborative – an initiative that examines pharmacy issues facing community health plans – member plans share data to establish benchmarks, discuss innovations and develop best practices for broader dissemination on a variety of pharmacy topics. These efforts have helped ACHP identify a set of promising approaches to addressing opioid misuse in their communities.

This issue brief provides an overview of the issue of opioid use and misuse, highlights the efforts of community health plans to promote safe and appropriate use of prescription painkillers, discusses the policy landscape on this issue and offers suggestions for future steps.

The Alliance of Community Health Plans (ACHP) is a national leadership organization bringing together innovative health plans and provider groups that are among America's best at delivering affordable, high-quality coverage and care.

The community based and regional health plans and provider organizations from across the country that make up ACHP's membership provide coverage and care for approximately 16 million Americans. These 22 organizations focus on improving the health of the communities they serve and are on the leading edge of innovations in affordability and the quality of care.

To learn more about ACHP, visit us at www.achp.org.

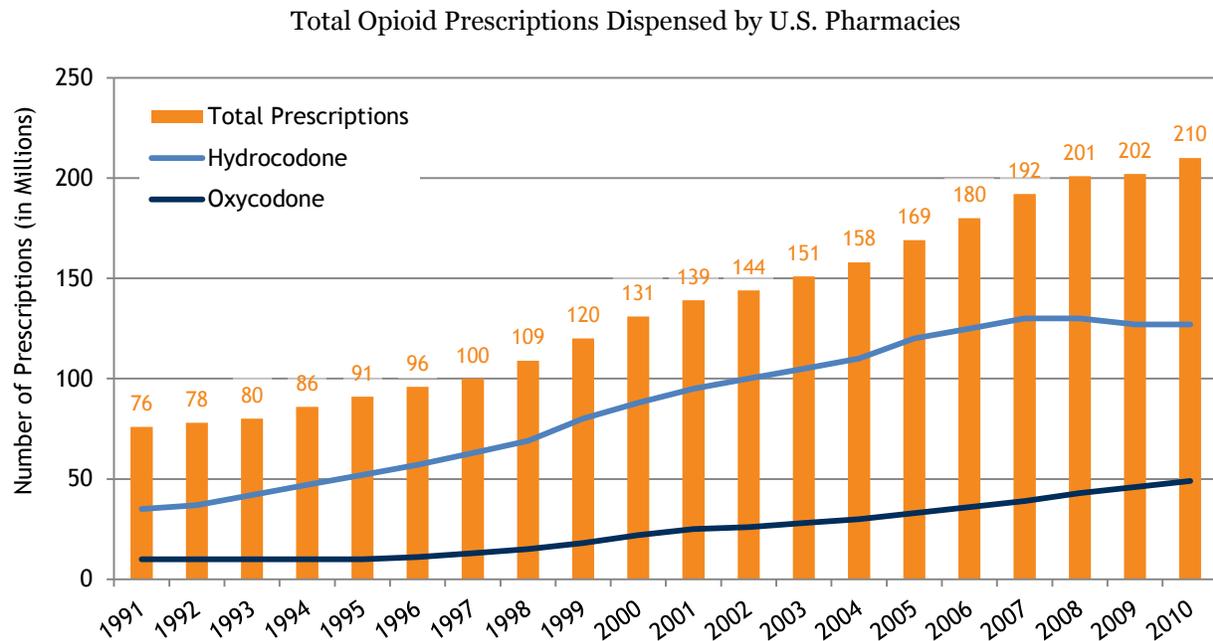


Figure 1: Total Opioid Prescriptions Dispensed by U.S. Pharmacies, 1991-2010.
 Source = *Prescription Drugs: Abuse and Addiction*. (2011). National Institute on Drug Abuse.²

Scope of the Issue

Opioid Use: Benefits and Potential Dangers

Opioids are highly potent, controlled medications that relieve pain. Often prescribed for acute pain, such as from injuries or dental procedures,⁴ opioids also can be an effective treatment for chronic pain associated with terminal or very serious illnesses, such as cancer.⁵ Frequently prescribed medications that fall within this class include hydrocodone (e.g., Vicodin), oxycodone (e.g., OxyContin), oxymorphone (e.g., Opana), morphine, fentanyl and codeine. Taken as prescribed, opioids can manage pain safely and effectively.

Regular or longer-term use of opioids can potentially lead to physical dependence and addiction. Physical dependence occurs because of the body’s normal adaptations to regular exposure to a drug and can lead to increased tolerance, the need to take higher doses of a medication to get the same effect. This natural response to medications means escalating doses of narcotics may have less effect on pain and can increase pain perception even when the cause of the pain has resolved. One study suggests that as many as 26 percent of patients receiving opioids for chronic non-cancer pain meet the criteria for opioid dependence.⁶

In 2009, 35 million people in the United States age 12 or older reported using a prescription pain medication for nonmedical purposes at least once in their lifetime. Further, nearly seven million people reported nonmedical use of pain medications in the month prior to a 2009 survey, including almost 5 percent of 18- to 25-year-olds.⁷

Effects of Inappropriate Opioid Use

Negative side effects of opioid use can include drowsiness, mental confusion, nausea and constipation. These side effects can sometimes inhibit patients from participating in non-opioid pain treatments such as cognitive behavioral therapy, directed exercise, physical therapy and yoga. Some pain patients develop opioid-induced hyperalgesia, a condition characterized by hypersensitivity to pain.⁸ When opioids are misused, adverse effects can be more substantial, including hypoventilation (inadequate air intake) and death.⁹

Prevalence of serious adverse effects from opioid use has been increasing over time. Emergency department (ED) visits involving misuse of prescription pain relievers increased 156 percent – from 166,338 to 425,247 – between 2004 and 2010.¹⁰ Further, in 2009 there were more than 15,000 deaths involving prescription pain medications, nearly four times as many deaths compared to 1999¹¹ and exceeding the total number of deaths involving heroin and cocaine combined (see Figure 2).

In addition to the significant effects on the health and lives of individuals, inappropriate use of opioids accounts for substantial costs to society, measured by increased costs to the health care, workplace and criminal justice systems. A recent study calculated these costs at \$55.7 billion in 2007.¹²

The Coalition Against Prescription Fraud estimates that opioid misuse costs health insurers up to \$72.5 billion a year, including up to \$24.9 billion in costs for private insurers.¹³ In 2007, Medicare Part D sponsors paid for nearly 46 million opiate prescriptions; by 2010, the number of these prescriptions had increased by 24 percent to 57 million.¹⁴

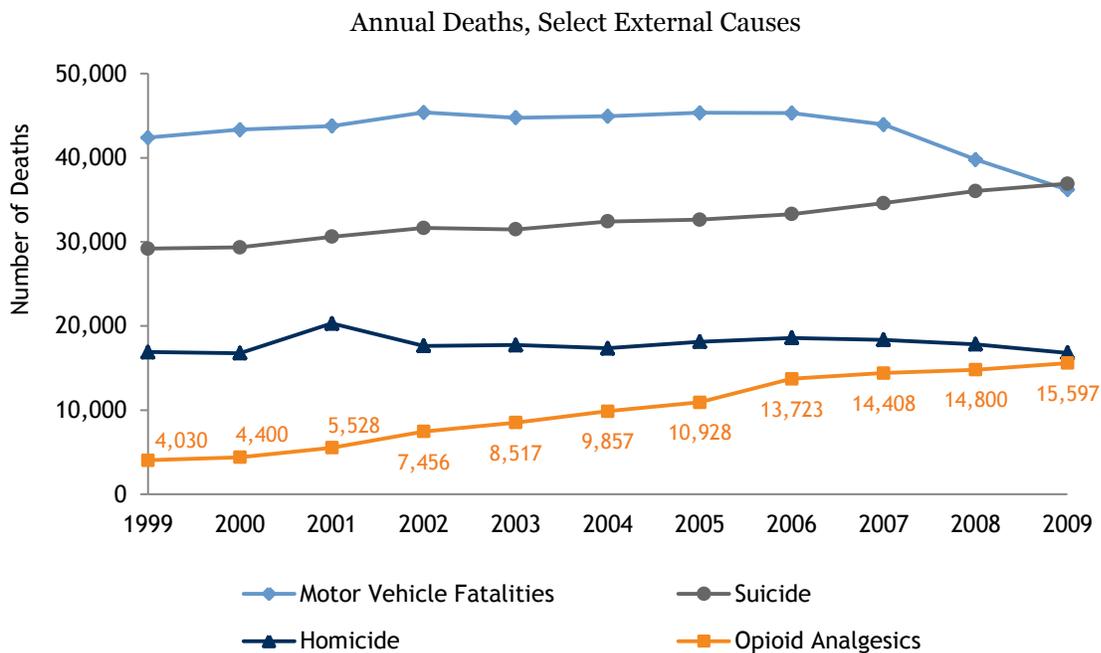


Figure 2: Deaths Due to Select External Causes, 1999-2009
 Source = National Vital Statistics Reports, 1999-2009¹⁵

Ensuring Safe and Appropriate Opioid Use: The Role of Health Plans

As the prevalence of opioid misuse grows, many community health plans are taking action to address the problem and encourage the safe and appropriate use of this class of medications.

Improving health and health care for patients and communities is the mission of the 22 community-based, not-for-profit health plans and provider groups that make up ACHP. Recognizing the personal and financial burden that opioid misuse can have on their communities, ACHP plans developed initiatives to ensure that their members have appropriate access to safe and effective pain management, while limiting the risk of opioid misuse or dependence. Through these efforts, they have reduced the number of patients on high doses of dependence-prone narcotics such as OxyContin and Vicodin, helped coordinate patients' care and ensured access to necessary pain management, including non-narcotic approaches to pain treatment.

The following profiles describe how ACHP member plans are addressing inappropriate opioid use and working with patients, local agencies, community-based organizations, providers and pharmacists to develop and implement their opioid initiatives.

Building Community Partnerships: CareOregon, UCare, and Independent Health

CareOregon

(View full CareOregon profile [online](#))

When local, regional and state groups work together to tackle a community problem, the results can be powerful. CareOregon, a Medicaid Managed Care plan based in Portland, leveraged the work of its community partners to enhance care for the plan's members.

Oregon has one of the highest rates of nonmedical opioid use in the United States, second only to Oklahoma.¹⁶ In response to the growing problem, in 2007 the state of Oregon, Multnomah County Health Department (MCHD) and CareOregon began developing a number of initiatives to decrease misuse of opioids. By engaging providers and community-based organizations and instituting standardized policies, they have been able to significantly decrease misuse.

Collaborative Initiatives

MCHD is a large Federally Qualified Health Center serving CareOregon members and other patients in the Portland area. The first MCHD community-wide standard guidelines passed in 2008 included a strict limit of 60-milligrams MED (morphine-equivalent dose)[†] for patients (later increased to 120 milligrams). The MCHD conducted outreach to physicians through a communications campaign and created a multidisciplinary Opiate Oversight Committee, which reviewed complicated cases and supported health care providers and staff. At the same time, CareOregon created a Member Centricity Committee that advised community partners and the health plan on how to communicate with patients regarding opioid use and misuse.

By engaging providers and community-based organizations and instituting standardized policies, the state of Oregon, Multnomah County Health Department, and CareOregon have been able to significantly decrease opioid misuse.

The MCHD – with facilitation and help from CareOregon – also brought together primary care physicians, federally-qualified health centers, ED providers, dental providers and health systems to increase collaboration and use of prescribing standards. Due to these conversations many ED physicians have adopted the Multnomah County prescribing standards.

[†] A morphine-equivalent dose standardizes the potency of various painkillers, using morphine as the baseline.

Building Community Partnerships: UCare

For the past year, UCare, serving more than 285,000 members in Minnesota and western Wisconsin, has been sharing data on physicians who are high prescribers of opioids with other health plans. This collaboration is mediated through the state of Minnesota Department of Human Services.

In July 2009, Oregon established its state Prescription Drug Monitoring Program (PDMP), an electronic database that collects information on certain controlled substances dispensed in the state. As of May 2012, the database held approximately six million opioid prescriptions, 130,000 prescribers and 9,000 pharmacists. The MCHD accesses the PDMP for information on all patients taking opioids who demonstrate “red flags” for misuse, for all patients reviewed by the Opiate Oversight Committee and before any patient initiates opiate therapy.

CareOregon Efforts in the Community

CareOregon has opened a chronic pain clinic staffed by a physical therapist, social worker and nurse practitioner to help patients manage their pain more effectively. CareOregon funds the entire operation of the clinic to serve its community’s needs, as it is not a benefit covered under Medicaid.

CareOregon also runs a successful pharmacy and provider lock-in program, which assigns members at high risk of opioid misuse to a single primary care physician, pharmacy and/or ED, allowing the plan to more effectively coordinate these patients’ care. This program, [profiled on achp.org](#), has reduced usage of multiple prescriptions, pharmacies, providers and EDs for the plan’s highest-risk members.

Outcomes

As a result of the prescribing limits, a policy identifying contraindications to prescribing opioids and active dialogue with patients on the safe use of opioids, CareOregon, MCHD and other stakeholders reduced the number of patients in the county on long-term, chronic opioid therapy by more than 50 percent between 2011 and 2012, from approximately 3,500 to 1,400. MCHD’s actions in turn encouraged other local Medicaid Managed Care clinics in Oregon to adopt similar approaches.

Independent Health

Independent Health began in 1980 as one of Western New York’s first HMOs and currently covers more than 400,000 members. Less than 10 percent of its members are seen primarily by affiliated or salaried providers; the vast majority of members are seen by contracted network physicians. Independent Health has sponsored, organized and participated in multiple initiatives to reduce the community burden of opioid misuse, including CME (Continuing Medical Education) programs, drug take-back days and a prescription drug summit.

“Bolstering medical school curriculums will take decades. Meanwhile, education often falls to local programs similar to one presented in December by insurer Independent Health...”

- *Buffalo News*, March 2011¹⁸

Continuing Medical Education

Independent Health has been conducting CME programs for Buffalo-area non-pain specialists, mainly primary care physicians, for three years. Pain and addiction specialists and behavioral health psychiatrists who contract with Independent Health lead panels for each session. They review appropriate prescribing, medication safety, legal implications in opioid prescribing, characteristics of drug-seeking patients, identification and treatment of addiction and physiological issues around pain. Independent Health has led these CME programs.

The plan has received very positive feedback from participating providers and attendance at these programs has grown every year, from 90 providers in 2009 to 200 physicians at its November 2011 session.

In August 2011, Independent Health also convened an Advisory Committee on Centers of Excellence for Pain Medicine, to which it invited board-certified pain medicine specialists, a family practice addiction medicine specialist and a nurse practitioner pain specialist. At this meeting, the committee discussed the best ways to provide support and resources to primary care providers. Based on recommendations it received from the Advisory Committee, Independent Health sent providers an educational mailing containing a list of the plan's activities to improve general pain prescribing, a tip sheet for non-pain specialists with a summary of the American Association of Physicians in Medicine's chronic non-cancer pain prescribing guidelines, a risk stratification chart to use early on in treatment using opiates and an invitation to the next CME program.

Prescription Drug Summit

Independent Health helped plan the 2011 Western New York Prescription Drug Summit and partnered with law enforcement, education and medical groups – including the New York State Attorney General's office, the University of Buffalo School of Pharmacy and Catholic Health Systems – to review the risks and issues around prescription drug abuse in Western New York. Five hundred people attended the 2011 summit to share their expertise. Independent Health, through its

participation in the planning committee, assured representation of the medical and clinical perspectives at the summit.



The Drug Enforcement Administration's National Prescription Drug Take-Back Days aim to provide a safe, convenient, and responsible means to dispose of medications, while also educating the general public about the potential for abuse of these medications. Photo credit: Donna Mazza

Drug Take-Back Days

Twelve Independent Health pharmacists ran take-back sites at National Prescription Drug Take-Back Days in April and October 2011. Thanks to an enhanced, coordinated effort between Take-Back Day partners (including the University of Buffalo School of Pharmacy, law enforcement agencies and community-based organizations) the Western New York program was the most successful in the nation.

Patient-Centered Pain Care: Group Health Cooperative and HealthPartners

Group Health Cooperative

(View full Group Health Cooperative profile [online](#))

In 2006, Group Health Cooperative – a consumer-governed, not-for-profit health care system based in Seattle, Wash. – developed chronic opioid therapy (COT) guidelines for treatment of non-cancer patients.[‡] Group Health’s opioid initiative was supported by simultaneous efforts across Washington State to reduce a growing statewide opioid epidemic. In 2007 Washington approved a guideline that recommended doctors refer patients on large doses of painkillers (based on a specific dosage level) to pain specialists, if their underlying condition was not improving. In January 2012, this guideline became state law.

By focusing on helping members more easily access care for chronic pain, between 2007 and 2011, Group Health cut by half the percentage of its non-cancer patients on high opioid doses of greater than 120 milligrams MED per day, and reduced the average daily dose among patients on painkillers by one-third.¹⁸

Individualized Treatment and Care Plans

At Group Health, all patients on COT must have a care plan developed with their physician, which includes diagnosis, patient goals, a discussion on the risks and benefits of opioids, information on the patient’s medication and dose, a treatment plan and instructions for follow-up. These care plans become part of each patient’s electronic medical record (EMR) and are an essential part of Group Health’s COT initiative, as they ensure appropriate access to pain medications and safe prescribing. High-risk patients – stratified based on dosage and other risk factors – must meet in-person with their prescribing clinician at least twice a year to review and update their treatment plans. Low-risk patients are required to visit their physicians at least once a year to review their treatment plan.

Group Health has also developed guidelines for referral of patients on COT to physical medicine, rehabilitation, pain, behavioral health and other specialists. Reasons for referral include excessively high opioid doses, decreases in function, psychiatric illnesses, chemical dependency or drug/alcohol addiction and difficulty adhering to a care plan.

Patient Profile: Managing Chronic Pain (view a video of Mary’s story on [YouTube](#))



Dr. Beck works with Mary to improve her quality of life and make sure her pain is being safely managed.

When Mary joined Group Health, she was suffering from pain following a string of surgeries. Her previous pain physician of 10 years had prescribed her escalating doses of opioids, whose side effects led to difficulty performing day-to-day activities.

Mary’s new Group Health physician, Randi Beck, M.D., worked with her to get her drug doses down to safer levels. Mary is currently taking a tenth of her previous painkiller dose, and her quality of life has improved significantly.

“It took the right doctor,” says Mary. “Before, they would just hand you pills. ‘Here you go, take this, take that.’ And I think [Dr. Beck] was the first one who really kind of forced [a change], and said ‘you can do it.’”

[‡] Chronic opioid therapy is defined as receiving 70 or more days’ supply of oral opioids in a three-month period.

Patient-Centered Prescribing Guidelines

The plan wanted to ensure that patients could meet with their providers on the day they needed a refill and have scheduled weekday refills, so providers must write refills in seven-day increments, generally for a total of 28 or 56 days. Under these new guidelines, patients are less likely to find themselves out of medication and without access to a physician or pharmacy over a weekend. As a corollary, pharmacies must hold medications until the day the prescription is due to expire, to limit requests for early refills and to increase the likelihood that medications are being taken as prescribed.

“Group Health care plans gave all of our physicians the structure to keep being able to see the right patients and treat them appropriately. Our patients did not experience the huge disruption in care and inability to get the necessary medications that happened elsewhere—another testament to the value of integrated, coordinated care.”

- Paul Sherman, M.D.
Medical Director,
Group Health Cooperative

To ensure communication between patients and their physicians, patients must be notified when their medications are changed or denied and given the rationale behind the change. Before filling a prescription, doctors must document the total morphine-equivalent dose, the total acetaminophen dose and how many days each prescription should last, as well as specific instructions for taking the medication.

Outcomes

In the first nine months of Group Health Cooperative’s opioid initiative, clinicians developed and documented care plans for almost 6,000 patients.¹⁹ Between August 2010 and December 2011, the percentage of non-cancer COT patients with care plans increased from 3 percent to 96 percent (see Figure 3). Group Health also increased the percentage of high-dose COT patients receiving urine drug screenings from 15 percent in 2008-2009 to 65 percent during the guideline implementation year (October 2010-September 2011). Among Group Health’s integrated group practice, between December 2007 and June 2011, the share of high-dose COT patients dropped from 17.8 percent to 9.4 percent of total members on COT. Group Health has also seen a decrease in patient complaints and fewer patients on high doses of opioids.

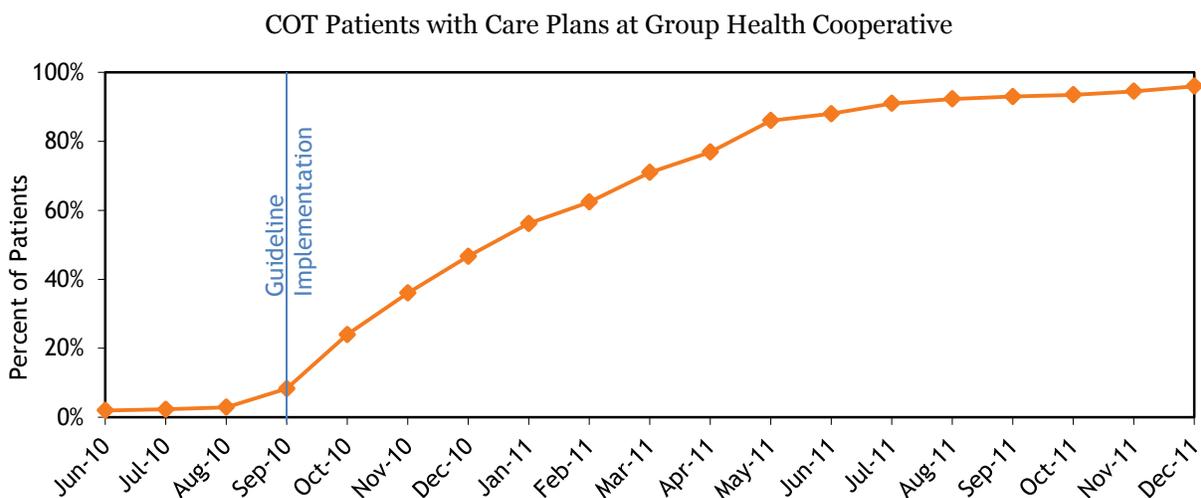


Figure 3: Percent of Chronic Opioid Therapy Patients at Group Health Cooperative with Care Plans

HealthPartners

(View full HealthPartners profile [online](#))

HealthPartners, an integrated care delivery, hospital and financing organization based in Minneapolis, Minn., addresses opioid use in its ambulatory clinics with patient-centered approaches emphasizing education, conversation and respect.

Assessment Visits with Providers

All patients who are taking long-acting opioids or who receive more than two opioid prescriptions within a three-month period (except for patients with a diagnosis of trauma, cancer or post-operative acute pain) are required to meet with their provider for a 40-minute visit; other patients with chronic pain needs are encouraged to schedule such visits. Prior to each appointment, pharmacists review each patient's history of controlled substance use to screen for signs of misuse.

To obtain a prescription for opioids, patients must sign an agreement stating that they will take their medications only as prescribed, and must also take a urine drug screen. When each prescription is written, the HealthPartners EMR displays patient education materials that providers are asked to review with each patient through its decision support tool. Patients' first prescriptions must be filled at a HealthPartners Medical Group pharmacy, and pharmacy staff members reinforce risks and benefits of opioids with the patients.

Individualized Treatment and Care Plans

Care plans for all patients with opioid prescriptions are stored in each patient's EMR and can be accessed by other providers. If long-term opioids are deemed the most appropriate treatment, patients follow up with their providers every one to three months and update and renew their care plans at least once a year. In cases where therapies other than long-term opioids are determined to be the best treatment, pharmacists assist patients with the transition from opioids.

Patient-Centered Prescribing Guidelines

Under the guidance of HealthPartners' Pain Management Advisory Group, a group of local pain experts, the plan instituted opioid quantity limits in July 2012. For acute pain, prescriptions are defaulted to a low number of pills. Immediate-release opioids are generally limited to eight pills per day, and sustained-release medications are limited to four pills per day. Providers can request greater quantities of opioids if they demonstrate consistency with each patient's care plan and present a monitoring plan to detect addiction, misuse or diversion. For opioids related to a surgery, the surgeon is responsible for all pain prescriptions to ensure better coordination and management of pain care.

Intravenous narcotics cannot be prescribed to patients in EDs except in cases of medical emergencies unrelated to chronic pain. The plan emphasizes to patients that EDs should not be used for routine medical care or management of chronic pain. HealthPartners care coordinators proactively identify patients in the ED, schedule follow-up appointments with primary care providers, connect patients to social workers and community treatment resources, and provide transportation vouchers.

Outcomes

To date, 1,140 patients have had 40-minute assessment visits, 1,600 have opioid care plans documented in their electronic medical record and 1,250 have signed opioid prescription agreements. Consistent care plan management at Regions Hospital in St. Paul for patients who had frequent admissions or ED visits arising from poorly controlled and managed opiate or chronic pain problems led to a 68 percent reduction in ED visits and admissions. This translated to overall savings of over \$800,000, with over \$500,000 of savings in the first two months of the initiative.

Engaging Providers: Kaiser Permanente of Southern California, UPMC Health Plan, and Group Health Cooperative of South Central Wisconsin

Kaiser Permanente of Southern California (View full Kaiser Permanente profile [online](#))

Kaiser Permanente is the nation's largest nonprofit integrated health care delivery system comprising the Kaiser Foundation Health Plan, Kaiser Foundation Hospitals and the Permanente Medical Groups in eight regions. Close partnerships among the plan, providers, and pharmacists - as well as a system-wide integrated EMR - facilitate collaboration to implement changes throughout Kaiser Permanente Southern California.

Engaging Providers in Program Design

Kaiser Permanente Southern California's opioid program is a clinically-driven initiative led by Southern California Permanente Medical Group (SCPMG) physicians from its pain management, addiction medicine and primary care departments. These physician leaders recognized that, over the past decade, providers have been given mixed messages about pain management, being cautioned against both under- and over-treating pain. Therefore, the organization developed an opioid initiative which, according to SCPMG Assistant Regional Medical Director for Regional Quality and Clinical Analysis Joel Hyatt, M.D., "makes it easy to do the right thing and harder to do the wrong thing."

Assisting Physician Decision-Making

SCPMG has restricted prescriptions of OxyContin and Opana so that only oncology, pain management and hospice physicians can prescribe those medications. Kaiser Permanente Southern California has also added a decision support tool to its EMR that helps doctors make evidence-based decisions through the use of questionnaires and alerts.

When physicians attempt to write a prescription for OxyContin or Opana, a pop-up "alternative medication" alert provides the risks and dangers of these medications, the preferred and maximum doses, and links to evidence-based guidelines on optimal usage. If the prescriber continues with the prescription, the EMR then displays a questionnaire to determine patient and physician eligibility for the given opioid and dose. The alert also warns that OxyContin has a very high risk of misuse and asks

what other specific preferred long-acting narcotics the patient has tried. Finally, the alert warns physicians that OxyContin doses greater than 240 milligrams per day are considered unusually high.

By requiring physicians to pause to justify their prescribing choices, coding prescribing restrictions into the electronic system and informing doctors of medication alternatives, Kaiser Permanente Southern California makes it more likely that physicians will prescribe pain medications that are more clinically appropriate for patients and carry less risk of addiction, misuse and diversion. To support this effort, the plan has created a controlled substances workgroup and medical center review teams that regularly receive high risk prescribing lists



Vanessa Garin-Headen, M.D., a physician with Kaiser Permanente of Southern California, consults with a patient at the Harbor City-KP South Bay Medical Center. Photo courtesy of Labor Management Partnership/Kaiser Permanente.

and have the accountability to evaluate and address patients who are high utilizers of opioids and physicians with high risk prescribing patterns. SCPMG also hosts regular educational programs for its professional staff on safe opioid prescribing.

Through its efforts, Kaiser Permanente aims to decrease prescription narcotic abuse in the community, while assuring appropriate pain management for its patients.

Outcomes

As a result of Kaiser Permanente Southern California's opioid initiatives, OxyContin utilization in the region declined 70 percent from 2010 to September 2012, and continues to decrease. In addition, Opana prescriptions have declined 8 percent. Another goal of the program has been to reduce the prescribing of brand names, due to their greater risk of diversion and higher street value. As a result, prescriptions of brand-named opioids such as Vicodin, Norco or Labtec when a generic was available have gone down over 80 percent from 2010 to 2012.

UPMC Health Plan

(View full UPMC Health Plan profile [online](#))

As part of an integrated health care delivery system, UPMC Health Plan (UPMCHP) – owned by the University of Pittsburgh Medical Center – partners with the medical center and a community network of more than 80 hospitals and 7,600 physicians to serve residents in Western Pennsylvania. Approximately 30 percent of UPMCHP members are seen by affiliated physicians; the remainder are seen by contracted network providers. UPMCHP's opioid misuse initiatives address both the management of chronic pain and the monitoring of fraud and abuse, with a focus on supporting primary care physicians. At their core is a toolkit developed by a multidisciplinary group of providers that includes resources for physicians on appropriate opioid prescribing.

Engaging Providers in Program Design

In 2010, the plan convened a workgroup of addiction specialists, pain specialists, psychiatrists, pharmacists and primary care physicians to solicit feedback on the best ways to support providers in caring for patients with chronic pain.

Assisting Physician Decision-Making

As part of its pain management initiative, the health plan created an algorithm to identify patients with abnormal opioid utilization patterns. If abnormal use patterns persist six months after identification, UPMCHP sends prescribing physicians a list of these patients' names along with their prescription drug history. Providers can request help in referring any of these patients to specialists or can ask for pharmacist assistance in determining appropriate dosing or checking for possible drug interactions. Care management nurses are also available to patients and providers to manage psychosocial issues, assist with scheduling appointments and conduct patient outreach.

Along with the patient list, UPMCHP sends providers a comprehensive pain management toolkit.⁵ The toolkit includes information about appropriate narcotic prescribing; patient assessments and screening tools for early identification of misuse; strategies for acute and chronic pain management; patient pain agreements; formulary and drug information; and charts that help providers compare

⁵ UPMCHP's Pharmacy Pain Management Toolkit has won multiple awards, including the Gold Award in the 2011 Aster Awards competition, an "elite competition recognizing the nation's most talented marketing professionals and excellence in health care marketing." The toolkit was also a Gold Award Winner at MarCom, an international competition sponsored by the Association of Marketing and Communication Professionals (AMCP).

doses of different painkillers. The toolkit recommends non-pharmacological treatment for pain whenever possible, including initiatives to address underlying physical, emotional, social and vocational issues that may be exacerbating or causing the pain.

Outcomes

An analysis of claims done before and after the initiative began showed that in its first year, UPMC Health Plan's Pain Management Program led to 13 percent fewer opioid claims for targeted members. In addition, cost trends for the identified members have been flat for overall pharmacy costs and the opioid category.

Engaging Providers: Group Health Cooperative of South Central Wisconsin

Group Health Cooperative of South Central Wisconsin has convened a multidisciplinary team to develop a comprehensive chronic pain management process. This process will include development of a pain assessment tool, guidelines for referrals to pain specialists embedded in the EMR, recommended maximum opioid dosing in primary care, and electronic chronic pain resources and tools for providers and nurses. This initiative will be implemented in January 2013.

Managing Covered Medications: Presbyterian Health Plan

(View full Presbyterian Health Plan profile [online](#))

Since 2011, New Mexico has had the highest rate of drug overdose deaths in the United States and the ninth-highest rate of nonmedical opioid use.²⁰ Presbyterian Healthcare Services (PHS) in New Mexico comprises Presbyterian Health Plan (PHP) and the Presbyterian Delivery System and cares for more than 37 percent of the state's residents.

Engaging Providers in Program Design

In 2007, health plan staff discovered that OxyContin was among the top-prescribed medications, with significant variation in prescription patterns. Some physicians were prescribing up to 3,200 milligrams per day for a single patient,** and some patients were on multiple combinations of narcotics. In response, Presbyterian, in partnership with a cohort of pain specialists in New Mexico, developed a multi-faceted approach to help physicians and members manage chronic pain. A significant aspect of this approach involved changes to the health plan's formulary (list of covered medications).

Encouraging Safe Prescribing

In 2007 PHP decided to eliminate OxyContin from its formulary for non-cancer patients and instituted a 90-day transition plan. Fentanyl patches and Opana extended-release were added to the formulary as OxyContin replacements. Before prescribing either of these alternate medications, however, providers had to demonstrate prior use of morphine sulfate extended-release, a first-line painkiller with no restrictions on use for health plan members.

The health plan notified members and providers of this change, coordinated referrals to pain and spine specialists and assigned members to PHP case managers. PHP also developed universal criteria, prior authorization and educational programs for monitoring and controlling use of Suboxone (which is used to treat opioid addiction).

In 2012, PHP instituted quantity limits on all short-acting opioids. The plan then sent lists of patients who were over the prescribing limits to each member's primary care physician. As of 2012,

** In comparison, the highest OxyContin dose tested during clinical trials was 640 milligrams per day; see <http://www.drugs.com/pro/oxycontin.html>.

emergency EDs in New Mexico write only two-day supplies of narcotics per visit and check the state Prescription Drug Monitoring Program (PDMP) to identify when a patient’s prescription was last filled. If the prescription has been recently filled, the ED will not write any prescriptions for narcotics. These improvements are due in part to an ED network convened by PHS.

Outcomes

PHP has documented an 80 percent reduction in the number of prescriptions for OxyContin (see Figure 4) as well as a reduction in cost growth for narcotics. The addition of Fentanyl and Opana Extended Release (ER) to the formulary has given PHS providers access to more options rather than forcing them to escalate doses of OxyContin to manage pain. More than 60 members on the highest OxyContin doses were successfully transitioned to new providers and other formulary alternatives at appropriate dosing.

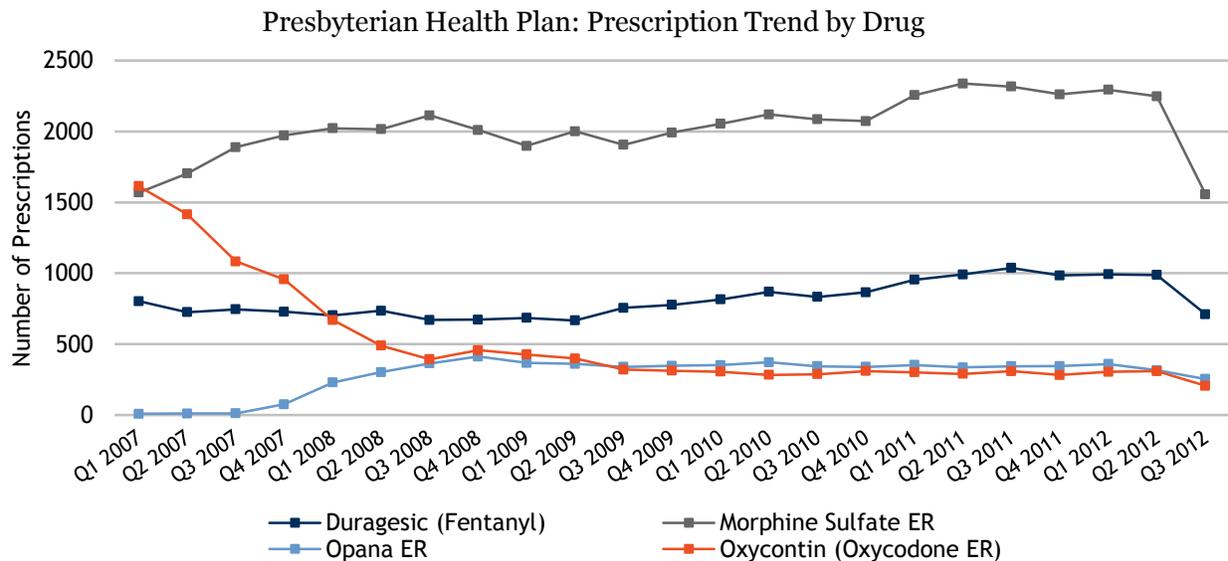


Figure 4: Long-Acting Opioid Prescription Trend by Drug at Presbyterian Health Plan

Using Data to Identify Patients, Prescribers and Pharmacists for Outreach: Capital Health Plan, Fallon Community Health Plan, Geisinger Health Plan, Martin’s Point Health Care, Priority Health, Scott & White Health Plan, and Tufts Health Plan

At **Capital Health Plan** (CHP) in Tallahassee, Fla., and **Martin’s Point Health Care** (MPHC) in Portland, Maine, Pharmacy Benefit Managers (PBMs) identify high-risk members by several factors, including their number of prescribers, pharmacies, claims, controlled substances, different types of substances and total substances prescribed. Clinical pharmacists review profiles generated for these members and send them to each patient’s prescribers.

At MPHC, two months after these patient profiles are sent to prescribers, a clinical pharmacist reviews any prescriber responses, medical data and the most current pharmacy claims history to determine appropriate next steps.

If drug utilization does not decrease or if providers do not notify the PBM that the treatment is appropriate, CHP can limit members to a single pharmacy, impose coverage limits or refer patients to case management, medication therapy management or a pain specialist. In cases of suspected prescription fraud or abuse, the plan can also forward cases to its Special Investigations Unit. Based on

a longitudinal analysis, the PBM Safety and Monitoring Program reduced net pharmacy costs by \$21.33 per member per month for commercial members who were identified for outreach by the PBM. (View the full Capital Health Plan profile [online](#))

Every quarter, **Fallon Community Health Plan (FCHP)** – a locally integrated health plan serving more than 200,000 members throughout Massachusetts – examines narcotic utilization by member, pharmacy and physician. Each individual case is reviewed by the patient’s primary care physician and/or narcotic prescriber to determine the optimal medication therapy or case management approach for each patient. FCHP can subsequently limit members who are identified as high utilizers of opioids to one pharmacy and one prescriber.

Priority Health, which serves more than 619,000 members in 65 counties in lower Michigan, and **Geisinger Health Plan**, which serves 275,000 members throughout central and northeastern Pennsylvania, each use data to identify the top 25 members for all lines of business with the largest number of claims processed for narcotic painkillers during the previous quarter. Priority Health generates reports on these patients, which include the number of claims, prescribers and pharmacies used by the member. These reports are reviewed by nurse case managers who, when appropriate, may contact members and make direct referrals for substance abuse treatment; bring together the case manager, pharmacist, social worker and medical director for a comprehensive case review; or communicate with the primary care physician regarding prescribing patterns and appropriate next steps, such as the completion of a patient agreement.

Geisinger Health Plan sends letters to prescribers for members who obtain controlled substances from multiple prescribers and pharmacies and refers select members to behavioral health for outreach.

Scott & White Health Plan, part of an integrated health care delivery system based in Temple, Texas, tailors its opioid monitoring program based on line of business. The plan screens commercial members on a quarterly basis to identify those who are using three or more pharmacies and three or more providers, and then sends letters to all providers that include that member’s full opioid claims history for the previous year. Files for commercial health plan members who are identified on two consecutive quarterly reports are forwarded to case management. Medicare members on more than 120 milligrams MED daily are screened by a clinical pharmacist, and its Medicaid line of business includes a lock-in program, which can restrict high-risk members to designated providers for opioid prescriptions.

A key feature of the pain management program at **Tufts Health Plan**, based in Watertown, Massachusetts, is the significant level of coordination between the plan’s Clinical Pharmacy Department, Fraud Prevention and Recovery Unit (FPRU), Pharmacy Benefit Manager, providers, and members. PBM clinical pharmacists evaluate claims on a quarterly basis to detect patterns of potential overuse or misuse of controlled substances. These patterns are based on the number of prescribers, pharmacies, claims and total drugs. If a potential misuse or safety concern is identified, the PBM contacts the FPRU to coordinate follow-up.

As part of Tufts Health Plan’s Prescriber Education and Medication Assessment Program, a retrospective drug utilization review program, the plan and the prescriber are given a profile of prescribing habits related to controlled substances along with a peer comparison, educational information and patient profiles. In addition, in coordination with the plan, PBM clinical pharmacists meet directly with physicians targeted by the drug utilization review program to alert them of and educate them on critical safety issues, such as inappropriate utilization of controlled substances and drug-drug interactions. During these visits, physicians are given member-specific tools to illustrate various opportunities to improve care, outcomes and cost containment.

Future Steps

Prescription painkiller misuse is a critical challenge to our health care system. Community health plans, working with providers, patients and public health leaders, are making progress in ensuring appropriate use of these powerful drugs, but clearly more work needs to be done. To accelerate this progress, policymakers, plan executives, physician leaders, patient advocates, pharmaceutical manufacturers and others should work together to take three important steps:

1. Strengthen Prescription Drug Monitoring Programs

State Prescription Drug Monitoring Programs (PDMPs) collect prescriber and patient prescription data on drugs that are often misused. While nearly every state has some form of PDMP, there is significant variation in their authority, strength and effectiveness.²¹ For instance, PDMPs differ in their ability to monitor all controlled substances, provide data proactively to relevant parties (e.g., prescribers, pharmacists and law enforcement) through alerts or reports and require comprehensive education for health professionals. Most states allow access to licensed prescribers and/or pharmacists.²² However, no states grant health plans access to PDMP information.

While PDMPs are an important step toward monitoring medication use, they are only effective insofar as providers use them. Some ACHP member plans report that health professionals underuse their state PDMPs partly because of the additional demand on already challenging workloads. Others note frustration with patients who cross state lines to fill prescriptions for narcotics.

To be most effective, states should implement effective PDMPs, with active roles for pharmacists and physicians as well as capabilities for data sharing across state lines. Key next steps are:

- PDMPs should have the authority and ability to exchange information with other state PDMPs to address cases of interstate opioid misuse, while retaining data confidentiality, security and privacy.
- Pharmacists should report all controlled substances dispensed, check the database before filling opioids and take appropriate actions if unusual or excessive prescribing patterns are recognized.
- All states should consider allowing nurse practitioners and physician assistants to submit data to the PDMP; allowing physicians and pharmacists to share the associated data entry burden with support staff may help to increase the completeness of the data contained in the PDMPs.
- PDMPs should be easy to use and minimize the overall burden on medical professionals by proactively providing alerts or reports to prescribers and dispensers. Reports would contain the prescription history of patients who meet certain criteria for questionable activity, such as exceeding a set number of opioids prescriptions, pills or providers within a set timeframe or frequent use of early refills. Use of these “red flag” indicators should trigger a conversation among doctors, pharmacists and patients and, when necessary, public health and law enforcement agencies.
- As health plans and provider groups continue to adopt advanced EMRs, health information technology can play an important role in supporting appropriate prescribing. First, EMRs should be linked to decision support systems to guide providers through evidence-based prescribing guidelines with the use of alerts and warnings. Second, linking state PDMP databases to EMRs could relay electronic prescriptions directly to the PDMP, which would in turn send the patient’s scheduled drug history back to the provider’s EMR. Such systems are currently being piloted by the Department of Health and Human Services.²³

2. Improve Provider and Patient Education Programs

Through its opioid risk evaluation and mitigation strategy (REMS), released July 9, 2012, the U.S. Department of Health and Human Services and the Food and Drug Administration (FDA) will require manufacturers of extended-release and long-acting opioid products to develop provider and patient education materials and training initiatives on appropriate use of these drugs.²⁴ Provider education will focus on best practices for prescribing opioids as well as managing, monitoring and counseling patients. In addition, provider education will include information on how to recognize the potential for, and evidence of, opioid misuse. Patient education activities will focus on safe use, storage and disposal, information on signs of overdose and emergency contact instructions. Key next steps are:

- Physicians registered with the Drug Enforcement Administration to prescribe controlled substances should be strongly encouraged to participate in training and education on appropriate use of opioids.
- Education materials should be evidence-based and draw not just on pharmaceutical manufacturers' experience, but also on the clinical expertise of providers, pharmacists and other stakeholders. As should be the case with all evidence-based information, the education materials should avoid influences that could be driven by conflicts of interest.
- Built-in feedback mechanisms should allow health plans, delivery systems, pharmaceutical companies and the FDA to learn from each other's provider education initiatives.
- The opioid REMS should include additional education requirements for other health care providers, such as nurses, nurse practitioners, physician assistants and pharmacists, since all health professionals are in the position to identify and intervene in cases of opioid misuse.
- The FDA should partner with health plans, provider groups and physician organizations, pharmacists and pharmaceutical manufacturers to monitor and strengthen the REMS for opioids. While the opioid REMS is a critical step for the FDA to take, the scope of the strategy should be expanded to focus on provider education and data feedback to appropriate parties.

3. Expand Concurrent and Retrospective Drug Utilization Review Programs

In April 2012, the Centers for Medicare & Medicaid Services (CMS) introduced new requirements for Medicare Part D prescription drug plans targeting opioid misuse. Beginning in 2013, CMS will require plans administering Part D plans to employ more effective concurrent and retrospective drug utilization review (DUR) programs^{††} and to comply with drug utilization management requirements. Additionally, the new CMS regulations will require plans to share the record and actions generated by the DUR with any plans a beneficiary switches to, when applicable. In tandem, CMS will implement a physician and pharmacy education campaign about opioid misuse to support these efforts in Part D.²⁵ This multi-pronged program aims to identify patients with questionable opioid utilization patterns (e.g., a high dosage of opioids over an extended period of time and multiple prescribers or pharmacies) and to intervene in such situations when plans confirm problematic usage. Key next steps are:

- CMS should explore methods to share lessons learned and best practices from its new Part D requirements with other health insurers as well as with the FDA, for general application to all opioid prescribing.

^{††} Drug utilization review is “an authorized, structured, ongoing review of prescribing, dispensing and use of medication.” (Academy of Managed Care Pharmacy); see <http://amcp.org/WorkArea/DownloadAsset.aspx?id=9296>.

- As CMS studies the effectiveness of these new DUR programs, the agency – in coordination with health care stakeholders such as health plans, the FDA, and pharmaceutical manufacturers – should monitor whether specific DUR program components, such as a set daily morphine equivalent dosage (MED) of opioids over a set period of time, in combination with other potential-misuse factors (e.g., number of prescribers, pharmacies and days of use), could inform future prescribing regulations within this class of medications. A carefully designed study would clarify how the factors correlate with misuse and abuse. The specific factors identified in the study could lead to more formal FDA efforts to oversee and regulate prescriber behavior related to opioids.
- Efforts to increase limitations on provider prescribing of opioids must balance the goal of decreased misuse with the burden that additional controls place on the patients who take these medications appropriately. Requiring plans to investigate cases only when there are specific indicators of misuse would reduce the number of investigations for patients who appropriately use medications, limit the burden on health plans and increase plans' effectiveness in intervening in cases of misuse.

Conclusion

Addressing opioid misuse is a substantial and escalating challenge. A combination of policy initiatives including strengthening PDMPs, improving provider and patient education programs and expanding drug utilization review programs increases the likelihood of success. Throughout the implementation of these initiatives, it is important to discourage misuse of opioids without compromising care for the majority of patients who take these medications appropriately. Patient-centered approaches consider each person on an individual basis and unite physicians, pharmacists and patients in an effort to help patients safely manage pain and improve their quality of life.

The opioid misuse initiatives implemented by ACHP health plans succeed through their collaborative efforts with patients, providers, pharmacists, community-based organizations and local and state authorities. Health plans can circumvent inappropriate interactions at the point-of-sale or reach out to patients and providers following suspected misuse. They can also help providers identify members who may be currently misusing opioids or who are at a high risk of misuse, and connect them with the most appropriate resources, including alternative medications and/or substance abuse treatment.

Systemic approaches to managing opioid misuse engage the many stakeholders who are interested in addressing this issue in their communities. Health plans can coordinate partnerships among these stakeholders, such as pharmaceutical companies, providers, law enforcement agencies, and public health departments. In particular, plans can facilitate appropriate prescribing among both their affiliated and contracted network physicians by convening provider workgroups to develop best practices, integrating decision support into their electronic medical records, encouraging use of care teams and leading physician education efforts. All health plans can modify the medications they cover and use data to identify patients, providers and pharmacists for outreach. As these strategies are further tested and validated, other health plans and policymakers can learn from and apply the approaches ACHP plans have developed.

ACHP and its member plans are dedicated to improving the quality of care for patients taking opioids and with chronic pain, and will continue developing and sharing innovations to promote appropriate pain management. The opioid misuse initiatives they are engaged in underscore ACHP's mission to improve the health of the communities its plans serve and actively lead the transformation of health care to promote high quality, affordable care and superior consumer experience.

References

- ¹ Centers for Disease Control and Prevention. (2010). Unintentional Drug Poisoning in the United States. Retrieved from <http://www.cdc.gov/homeandrecreationalafety/pdf/poison-issue-brief.pdf>.
- ² Research Report Series. Prescription Drugs: Abuse and Addiction. (2011). National Institute on Drug Abuse. Retrieved from <http://www.drugabuse.gov/sites/default/files/rrprescription.pdf>.
- ³ Arias, I. Prescription Drug Overdoses: Public Health Policy Approach. (2012). American Society of Addiction Medicine. Annual Medical-Scientific Conference. Retrieved from <http://asam-365.ascendeventmedia.com/Highlight.aspx?p=368&id=4452>.
- ⁴ NIDA. Research Report Series. Prescription Drugs: Abuse and Addiction. (October 2011.). National Institute on Drug Abuse. Retrieved from <http://www.drugabuse.gov/sites/default/files/rrprescription.pdf>.
- ⁵ Chou, R., et al. (2009). Clinical Guidelines for the Use of Chronic Opioid Therapy in Chronic Noncancer Pain. *The Journal of Pain*. 10(2), 113-130.e22. Retrieved from <http://www.ncbi.nlm.nih.gov/pubmed/19187889>.
- ⁶ Boscarino J., et al. (2010). Risk factors for drug dependence among out-patients on opioid therapy in a large US health-care system. *Addiction*. 105, 1776-1782. Retrieved from <http://www.ncbi.nlm.nih.gov/pubmed/20712819>.
- ⁷ Substance Abuse and Mental Health Services Administration. (2010). Results from the 2009 National Survey on Drug Use and Health: Volume II. Technical Appendices and Selected Prevalence Tables. Retrieved from <http://oas.samhsa.gov/NSDUH/2k9NSDUH/2k9ResultsApps.htm#AppG>.
- ⁸ Lee, M., et al. (2011). A Comprehensive Review of Opioid-Induced Hyperalgesia. *Pain Physician*. 14(2), 145-161. Retrieved from http://www.integration.samhsa.gov/pbhci-learning-community/Opioid-Induced_Hyperalgesia_Article.pdf.
- ⁹ NIDA. Research Report Series. Prescription Drugs: Abuse and Addiction. (2011). National Institute on Drug Abuse. Retrieved from <http://www.drugabuse.gov/sites/default/files/rrprescription.pdf>.
- ¹⁰ The Dawn Report. (2012). Highlights of the 2010 Drug Abuse Warning Network (DAWN) Findings on Drug-Related Emergency Department Visits. Retrieved from <http://www.samhsa.gov/data/2k12/DAWN096/SR096EDHighlights2010.htm>.
- ¹¹ Food and Drug Administration. (2012). FDA introduces new safety measures for extended-release and long-acting opioid medications. Retrieved from <http://www.fda.gov/NewsEvents/Newsroom/PressAnnouncements/ucm310870.htm>.
- ¹² Birnbaum, H.G., et al. (2011). Societal Costs of Prescription Opioid Abuse. *Pain Medicine*. 12, 657-667. (<http://onlinelibrary.wiley.com/doi/10.1111/j.1526-4637.2011.01075.x/abstract?>)
- ¹³ Coalition Against Insurance Fraud. (2007). Prescription for Peril: How Insurance Fraud Finances Theft and Abuse of Addictive Prescription Drugs. Retrieved from <http://www.insurancefraud.org/downloads/drugDiversion.pdf>.
- ¹⁴ Blum, J. (2011). Costs of Prescription Drug Abuse in the Medicare Part D Program. Retrieved from: <http://www.hhs.gov/asl/testify/2011/10/t20111004a.html>
- ¹⁵ National Center for Health Statistics. (2002-2012). National Vital Statistics Reports. Retrieved from <http://wonder.cdc.gov/>.
- ¹⁶ Rojas-Burke, J. (2012, April 6). Oregon's painkiller epidemic leveling off, but far from over. *The Oregonian*. Retrieved from http://www.oregonlive.com/health/index.ssf/2012/04/oregons_painkiller_epidemic_le.html.
- ¹⁷ Davis, HL. (2011, March 22). Controlling pain without creating addicts. *Buffalo News*. March 22, 2011.
- ¹⁸ Meier, B. (2012, April 8). Tightening the Lid on Pain Prescriptions. *The New York Times*. Retrieved from http://www.nytimes.com/2012/04/09/health/opioid-painkiller-prescriptions-pose-danger-without-oversight.html?_r=1&pagewanted=all.
- ¹⁹ Trescott, C., et al. (2011). Group Health's Initiative To Avert Opioid Misuse And Overdose Among Patients With Chronic Noncancer Pain. *Health Affairs*. 30,1420-1424. Retrieved from <http://www.grouphealthresearch.org/news-and-events/newsrel/2011/110804.html>
- ²⁰ Centers for Disease Control and Prevention. (2011). Vital Signs: Overdoses of Prescription Opioid Pain Relievers-United States, 1999-2008. Retrieved from <http://www.cdc.gov/mmwr/preview/mmwrhtml/mm6043a4.htm>.
- ²¹ Alliance of States with Prescription Monitoring Programs. (2012). Status of Prescription Drug Monitoring Programs (PDMPs). Retrieved from <http://www.pmpalliance.org/pdf/pmpstatusmap2012.pdf>.
- ²² Review of Prescription Drug Monitoring Programs in the United States. Institute for Pharmaceutical Outcomes and Policy, Department of Pharmacy Practice and Science, University of Kentucky. June 2010. Retrieved from <http://chfs.ky.gov/NR/rdonlyres/85989824-1030-4AA6-91E1-7F9E3EF68827/0/KASPEREvaluationPDMPStatusFinalReport6242010.pdf>.
- ²³ Department of Health and Human Services. (2012, June 21). New health IT effort aimed at reducing prescription drug abuse to be tested in Indiana and Ohio. Retrieved from: <http://www.hhs.gov/news/press/2012pres/06/20120621c.html>
- ²⁴ Food and Drug Administration. (2012). Extended-Release (ER) And Long-Acting (LA) Opioid Analgesics Risk Evaluation and Mitigation Strategy (REMS).Retrieved from <http://www.fda.gov/downloads/Drugs/DrugSafety/PostmarketDrugSafety/InformationforPatientsandProviders/UCM311290.pdf>.
- ²⁵ Announcement of Calendar Year (CY) 2013 Medicare Advantage Capitation Rates and Medicare Advantage and Part D Payment Policies and Final Call Letter. (April 2012). Centers for Medicare & Medicaid Services. Retrieved from <http://www.cms.gov/Medicare/Health-Plans/HealthPlansGenInfo/Downloads/2013-Call-Letter.pdf>.