### State Workgroup on Reducing the Overuse of Ineffective or Unnecessary Medical Care

**AGENDA**

Thursday, October 29<sup>th</sup>, 9:00AM-3:00PM

Inland Empire Health Plan, 10801 6<sup>th</sup> Street, Ste. 120, Rancho Cucamonga

<table>
<thead>
<tr>
<th>Time</th>
<th>Items</th>
<th>Leads/Presenters</th>
<th>Meeting Materials</th>
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<tbody>
<tr>
<td>9:00 AM</td>
<td>Welcome and Introductions</td>
<td>• Anne Price, Covered California&lt;br&gt;Bill Henning, IEHP</td>
<td>• Participant List&lt;br&gt;Workgroup Charter&lt;br&gt;Relevant Choosing Wisely® recommendations</td>
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<tr>
<td>9:10 AM</td>
<td>Purpose of Today's Meeting</td>
<td>• Anne Price, Covered California&lt;br&gt;Jill Yegian, IHA</td>
<td>• Workgroup Charter&lt;br&gt;Relevant Choosing Wisely® recommendations</td>
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<tr>
<td>9:25 AM</td>
<td><strong>Topic 1: Cesarean Section for Low-Risk Births</strong></td>
<td>• Lance Lang, MD, Covered CA&lt;br&gt;Stephanie Teleki, California HealthCare Foundation</td>
<td>• Cesarean Deliveries, Outcomes, and Opportunities for Change in California (CMQCC) - Executive Summary&lt;br&gt;Safe Prevention of the Primary Cesarean Delivery (ACOG C-section guidelines, 2014, abstract only)&lt;br&gt;How One Hospital Brought Its C-Section Rate Down Fast: US News&lt;br&gt;Consumer resources: safe pregnancy e-hub</td>
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<td>10:40 AM</td>
<td>Break</td>
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<td>12:05 PM</td>
<td>Lunch</td>
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<td>12:35 PM</td>
<td><strong>Topic 3: Opioid Overuse</strong></td>
<td>• Neal Kohatsu, MD, DHCS&lt;br&gt;Kelly Pfeifer, MD, California HealthCare Foundation</td>
<td>• Opioid Overuse: Statewide Strategy (K. Pfeifer)&lt;br&gt;CEPAC/ICER’s Action Guides for Management of Opioid Dependence (Summary)&lt;br&gt;Consumer resources: Prescription Painkillers: 5 Surprising Facts</td>
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<td>1:50 PM</td>
<td>Next Steps: Where do we go from here?</td>
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<td>2:50 PM</td>
<td>Wrap-Up</td>
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<td>3:00 PM</td>
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Statewide Work Group on Reducing Overuse

PARTICIPANT LIST

CO-CHAIRS
Covered California  Anne Price
Director, Plan Management

Lance Lang, MD
Chief Medical Officer

CA Department of Health Care Services  Neal Kohatsu, MD, MPH
Medical Director

CalPERS  Doug McKeever
Deputy Executive Officer- Benefit Programs Policy and Planning

Kathy Donneson, PhD
Chief, Health Plan Administration Division

PROVIDER REPRESENTATIVES

California Association of Physician Groups  Amy Nguyen Howell, MD
Chief Medical Officer

California Hospital Association  David Perrott, MD, DDS
Senior Vice President & Chief Medical Officer

California Medical Association  Theodore Mazer, MD*
Speaker of the House of Delegates

California Service Chapter American College of Physicians  Ashley Ruby
Executive Director

Cedars- Sinai Health System  Scott Weingarten, MD, SVP*
Senior Vice President for Clinical Transformation

Hospital Quality Institute  Julie Morath, RN, MS
President/Chief Executive Officer

Los Angeles County Department of Health Services  Jennifer Sayles, MD, MPH
Director, Value Based Healthcare

Sharp Rees-Stealy Medical Group  Parag Agnihotri, MD
Medical Director, Continuum Care

Sutter Health  Ann Marie Giusto, RN
Director, Variation Reduction
UC Davis School of Medicine

Darin Latimore, MD, FACP
Associate Dean

UCLA Department of Medicine

Catherine Sarkisian, MD, MSPH
Professor

CONSUMER REPRESENTATIVES

Center for Healthcare Decisions

Marge Ginsburg, MPH
Executive Director

Consumers Union

Beccah Rothschild, MPA
Senior Outreach Leader

Western Center on Law & Poverty

Elizabeth Landsberg, JD
Director of Legislative Advocacy

PLAN/PURCHASER REPRESENTATIVES

Anthem

Michael Belman, MD, MPH*
National Medical Director

Blue Shield of California

Marcus Thygeson, MD, MPH, SVP*
Senior Vice President for Clinical Transformation

Ryan Lawton, MS
Chief Process Architect, Engage in My Health Healthcare Quality & Affordability

Inland Empire Health Plan

William Henning, DO
Chief Medical Officer

Partnership Health Plan

Robert Moore, MD*
Chief Medical Officer

San Francisco Health Service System

Catherine Dodd, PhD, RN*
Director

COLLABORATORS/POLICY

California HealthCare Foundation

Kelly Pfeifer, MD
Director, High-Value Care

Stephanie Teleki, PhD
Senior Program Officer, High-Value Care

CA Health and Human Services Agency

Katie Heidorn, MPA*
Deputy Secretary

Independent

Howard Kahn

Integrated Healthcare Association

Jill Yegian, PhD
Senior Vice President, Programs and Policy

Ashley Kirk
Program Associate

* = workgroup member unable to attend meeting
Charter for Multi-Stakeholder California Work Group (WG) on Reducing the Overuse of Ineffective or Unnecessary Medical Care

**Purpose**
To develop, initiate, monitor and evaluate approaches to reducing the overuse of selected unnecessary and wasteful medical services in CA. These approaches may apply to services affecting individuals within Medi-Cal as well as commercially-insured health plan members.

**Sponsor**
This body functions as an ad hoc stakeholder work group (WG) coordinated by the CA Department of Health Care Services (DHCS) in conjunction with Covered California and CalPERS. Professional WG support will be provided by funding from the California HealthCare Foundation.

The WG will be comprised of individuals from multiple stakeholder groups whose active input and participation is essential to the success of this effort to improve healthcare quality and affordability in the state.

**Scope/boundaries**
This WG will focus its efforts on reducing overuse in CA of selected medical interventions across public and private delivery systems. Initial work will target specific tests and procedures identified in the Choosing Wisely ® Campaign (CWC) that particularly impact the needs of CA plan members, e.g., interventions that are disproportionately frequent, jeopardize the quality of care, and/or whose high cost may impact access to beneficial services. The WG may expand its focus to non-CWC and/or particular preference-sensitive interventions, tests and procedures.

**Activities**
The WG will:

1. Establish an inclusive, multi-stakeholder structure for addressing the issue of overuse of unnecessary and/or ineffective medical services in California.
2. Identify specific overused services that will be the focus of initial efforts, with particular attention to those that target patient safety/harm reduction.
3. Develop a plan for accessing data of current levels of overuse of select interventions.
4. With available funding or pro bono resources, collect relevant data and conduct an analysis for future comparisons.
5. If feasible and relevant, determine how best to present differences in overuse, e.g., by counties, by types of plan members, by health plans and/or by providers.
6. In association with the Center for Healthcare Decisions, research and report the priorities and values of public and private sector health plan members related to specific strategies for reducing potentially harmful and/or wasteful medical interventions.
7. Propose approaches to reducing overuse that take into consideration consumers’ views and values.
8. Propose and promote effective communication for reaching healthcare professionals and consumers about overuse.
9. Evaluate take-up of CWC educational materials (e.g., number of organizations participating; website metrics) targeted to consumers and/or providers.
10. Assess extent to which overuse has been reduced among those targeted interventions.
11. Consider targeting other interventions that may not be within the CWC domain.

**Deliverables**
The efforts of the WG will be evident by:
1. Development of overarching principles that will govern how the WG functions and its role in broader statewide initiatives, such as the renewal of DHCS’s 1115 waiver and the Lets Get Healthy California (LGHC).
2. Identification of one or more specific overused interventions for a state-wide or targeted campaign.
3. Realistic goals for reducing targeted interventions over a specific time frame.
4. Specific plans for disseminating CWC materials oriented to consumers, providers, health plans and the media, on targeted areas of overuse.
5. Highlighting of “success stories” (e.g., Swedish Hospital in WA state) and the types of strategies used that are most effective in reducing overuse among particular providers or consumers.
6. Visible evidence of a culture of “responsible stewardship of resources” across multiple stakeholder groups.
7. Plans for if and how coordinated efforts to reduce overuse will be continued long-term in the state.

**Desired Outcomes**
By the end of this 3-year effort, the WG expects the following:
1. CW materials will be incorporated into the educational programs for providers and consumers in a significant number of local and state organizations, including health plans, medical groups, hospitals, purchasers and consumer organizations.
2. A meaningful number of participating health plans and medical groups will have instituted changes in their oversight or approval processes targeted to overused interventions.
3. There will be measurable evidence of reduction in the overuse of targeted interventions.

**Authority**
The WG is a statewide advisory and leadership body. It does not have the authority to change or to recommend changes in coverage design. Decisions to alter coverage of overused interventions remain the authority of individual private and public sector health plans and/or purchasers.

**Membership**
Members will be recognized leaders within the stakeholder groups most affected by the issue of overuse: purchasers, health plans, healthcare systems and physicians, consumers, and possibly, researchers or other state leaders. Individuals will be invited onto the WG by the three lead organizations. In-person, three-hour meetings will be held quarterly, alternating between Sacramento and southern Calif.

**Reporting**
Written reports will be provided according to an agreed-upon schedule with Calif. HealthCare Foundation (and any other funders), as well as for the benefit of other state-sponsored initiatives whose interests overlap, such as the 1115 Waiver and LGHC. Other
WG members will also be encouraged to include updates on their websites. Resources permitting, the CWG will develop a website – as well as periodic e-newsletters – as a means of keeping all interested parties well-informed.

**Timeframe**

The initial meeting will be held in Sacramento in spring 2015; it will meet quarterly over a 3-year period. Among its roles is to determine if, after three years, it should be either 1) extended as an ad hoc committee; 2) incorporated into the permanent structure of DHCS or another organization; or 3) discontinued.
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<tr>
<th>Test/Treatment</th>
<th>Recommendation</th>
<th>Specialty Society</th>
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<tbody>
<tr>
<td>Use of Imaging Studies for Low Back Pain</td>
<td>Don’t do imaging for low back pain within the first six weeks, unless red flags are present</td>
<td>American Academy of Family Physicians</td>
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<td>Don’t obtain imaging studies in patients with non-specific low back pain</td>
<td>American College of Physicians</td>
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<td>Don’t obtain imaging (plain radiographs, magnetic resonance imaging, computed tomography [CT], or other advanced imaging) of the spine in patients with non-specific acute low back pain and without red flags</td>
<td>American Association of Neurological Surgeons and Congress of Neurological Surgeons</td>
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<td>Don’t initially obtain X-rays for injured workers with acute non-specific low back pain</td>
<td>American College of Occupational and Environmental Medicine</td>
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<td>Don’t order low back X-rays as part of a routine preplacement medical examination</td>
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<td>Don’t recommend advanced imaging (e.g., MRI) of the spine within the first six weeks in patients with non-specific acute low back pain in the absence of red flags</td>
<td>North American Spine Society</td>
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<td>Avoid lumbar spine imaging in the emergency department for adults with non-traumatic back pain unless the patient has severe or progressive neurologic deficits or is suspected of having a serious underlying condition (such as vertebral infection, cauda equine syndrome, or cancer with bony metastasis)</td>
<td>American College of Emergency Physicians</td>
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<td></td>
<td>Avoid imaging studies (MRI, CT or X-rays) for acute low back pain without specific indications</td>
<td>American Society of Anesthesiologists – Pain Medicine</td>
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<td>C-Section</td>
<td>Don’t schedule elective, non-medically indicated inductions of labor or Cesarean deliveries before 39 weeks, 0 days gestational age</td>
<td>American Academy of Family Physicians</td>
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<td>Opioid Overuse</td>
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<td>Don’t schedule elective, non-medically indicated inductions of labor or Cesarean deliveries before 39 weeks 0 days gestational age</td>
<td>American College of Obstetricians and Gynecologists</td>
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<td>Don’t use opioid or butalbital treatment for migraine except as a last resort</td>
<td>American Academy of Neurology</td>
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<td>Don’t prescribe opioid or butalbital-containing medications as first-line treatment for recurrent headache disorders.</td>
<td>American Headache Society</td>
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<td>Don’t prescribe opiates in acute disabling low back pain before evaluation and a trial of other alternatives is considered</td>
<td>American Academy of Physical Medicine and Rehabilitation</td>
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<td>Don’t prescribe opioids for treatment of chronic or acute pain for workers who perform safety-sensitive jobs such as operating motor vehicles, forklifts, cranes or other heavy equipment</td>
<td>American College of Occupational and Environmental Medicine</td>
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<tr>
<td>Pain Medicine: Don’t prescribe opioid analgesics as long-term therapy to treat chronic non-cancer pain until the risks are considered and discussed with the patient.</td>
<td>American Society of Anesthesiologists</td>
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Topic 1: Cesarean Section for Low-Risk Births
Meeting Materials
Cesarean Deliveries, Outcomes, and Opportunities for Change in California:
Toward a Public Agenda for Maternity Care Safety and Quality

A CMQCC White Paper

Elliott Main, MD, Christine Morton, PhD
David Hopkins, PhD, Giovanna Giuliani, MBA, MPH
Kathryn Melsop, MS and Jeffrey Gould, MD, MPH

December 2011

Funded by the California HealthCare Foundation, based in Oakland, California.
EXECUTIVE SUMMARY

1. A RISING CESAREAN DELIVERY RATE, WITH WIDE PRACTICE VARIATIONS

Cesarean delivery rates in both California and the United States as a whole rose by 50 percent between 1998 and 2008, climbing from 22 percent to 33 percent of all births in just a decade. This upward trend, which is seen for every type of woman regardless of race/ethnicity, age, weight, or the gestational age of the pregnancy, shows no signs of reversing. The increasing rates are largely the result of two factors: a significant rise in first-birth cesareans done in the course of labor, and a marked decline in vaginal births after a prior cesarean (VBAC).

![Figure 1: Cesarean Delivery Rates: California, 1990-2009](image)

Source: CDC/NCHS, National Vital Statistics System

Cesarean deliveries are performed for many reasons. Some, such as those for breech presentation, are supported by strong clinical consensus. However, many cesareans, especially those done in the course of labor, are the result of labor management practices that vary widely and suggest clinician discretion, as discussed below.

In many contexts, cesarean delivery has come to be regarded as the safer option, when in fact it has greater risks and complications than vaginal birth. Higher cesarean delivery rates have brought higher economic costs and greater health complications for mother and baby, with little demonstrable benefit for the large majority of cases. With the marked decline in vaginal births after cesarean, cesarean deliveries have become self-perpetuating; and every subsequent cesarean brings even higher risks. Yet despite the fact that for several decades many editorials in leading obstetric journals and childbirth advocates have called for urgent action to reverse this trend, cesarean delivery rates have continued to rise.

Variations in Cesarean Rates among Regions, Hospitals, and Providers

Cesarean delivery rates vary widely among states, regions, hospitals, and providers. In California hospitals with more than 100 births per year, overall cesarean rates vary from 18 percent to well over 50 percent of all births; and rates of cesareans for low-risk first births vary from 9 percent to 51 percent. Several studies have estimated that 90 percent of the variation in cesarean delivery rates can be accounted for by just two indications (i.e., reasons) that occur in cesareans performed in the course of labor: failure to progress, and fetal intolerance of contractions. These
two indications also account for nearly all of the increase in the primary cesarean delivery rate. Over all, these highly variable rates represent significant opportunities for reducing the use of cesarean delivery, with different opportunities associated with different types of cesarean. Clearly, this is a national issue, and efforts undertaken in California to reduce the cesarean delivery rate can have widespread impact.

Cesarean Variation among Regions in California: a CMQCC Analysis
The California Maternal Quality Care Collaborative (CMQCC) analyzed variation among cesarean deliveries in California and found dramatic variations in NTSV\(^a\) rates among regions and among hospitals. California has similar payer contracts and liability laws among all regions, so the large geographic variation cannot be explained by payment or liability factors; rather, the variation suggests that local cultural factors may be at play. These factors may include the attitudes toward the desirability of vaginal birth among physicians and nurses on labor and delivery units, as well as hospital practices that affect the likelihood of vaginal birth. These and other sociocultural factors are discussed in Section 4.

Figure 2: Median Hospital Cesarean Rates for Perinatal Regions, California; 2007

![Graph showing median hospital cesarean rates for perinatal regions in California, 2007.]

Source: All-California Rapid Cycle Maternal/Infant Database, CMQCC 2011.

Why Is the Cesarean Delivery Rate Rising, and What Can Be Done?
After discussing the high rates and wide variations in current practice (Section 1), this white paper presents the evidence of costs and risks associated with cesarean deliveries (Section 2). Because the problem of high cesarean rates cannot be solved until the causes and drivers are understood, the paper then explores the major factors driving the increase. It shows that the rise cannot be explained by medical factors alone (Section 3), and looks at sociocultural factors.

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\(^a\) The NTSV measure tracks cesarean delivery among women who are nulliparous, at term, with a singleton baby in the vertex position; NTSV represents the lowest-risk, optimal set of conditions for vaginal birth among women—a first birth with a full-term, single baby in the head-down position. See Appendix G: Glossary of Terms for definitions of technical terms used in this White Paper.

that help explain the increasing use of cesarean delivery (Section 4). Finally, the white paper outlines a set of complementary strategies for reducing the rates (Section 5) and offers a number of CMQCC recommendations (Section 6).

Briefly, the reasons for the rapid rise in the cesarean delivery rate over the past decade are a combination of decreasing downward pressures and increasing upward drivers. Most of the pressures on providers and hospitals that kept cesarean delivery rates stable in the past have all but disappeared, including physician pride in a low cesarean rate, peer and professional organization pressures, and women’s strong preference for avoiding a cesarean delivery. Today, providers seem to see no “downside” to a high cesarean rate; and women seem increasingly accepting of the prospect of a cesarean.

Meanwhile, the drivers of increasing cesarean rates have grown in influence. These drivers include physicians’ concerns about medical liability, increased scheduling of births, and greater use of technology such as electronic fetal monitoring (despite a limited scientific evidence base). Other changes in obstetric practices that have contributed to the rising rates include increasing use of labor induction, early labor admission, lack of patience in labor, and the virtual disappearance of vaginal birth after a prior cesarean.

In short, the “path of least resistance” for both physicians and women now leads to higher and higher cesarean rates.

2. LITTLE EVIDENCE OF BENEFITS; CLEAR COSTS AND RISKS

The risks and costs associated with cesarean deliveries are considerable, while there is little evidence for the supposed benefits ascribed to them. Indeed, it has not been possible to document any population-level benefit to women or newborns associated with the increased rate of cesareans. The Joint Commission recently stated this finding succinctly: “There are no data that higher rates improve any outcomes, yet the C-section rates continue to rise.”

Primary cesarean delivery today is safer than ever; and because major complications are rare with a first birth, the risks of primary cesarean are not visible to practicing obstetricians. However, repeat cesareans, in particular, carry significant risks and complications. Unfortunately, these “future” risks of repeated cesareans are not well appreciated by either obstetricians or the public.

This section reviews the limited evidence for the benefits ascribed to cesarean deliveries and outlines their well-documented risks and costs.

Putative Medical Benefits of Cesarean Delivery

The most common medical indications for cesarean deliveries include breech presentation, twin pregnancies, prematurity, and labor complications. With the sole exception of breech presentation, however, the 50 percent increase in cesarean deliveries over the past decade is associated with very little documented benefit for newborns. Although concern for fetal well-being (fetal intolerance of labor) is one of the most frequent indications for cesarean delivery, there is little to suggest that the higher rates of cesarean are providing the intended benefits. And apart from specific medical obstetric indications in the mother (e.g., placenta previa or severe preeclampsia), cesarean delivery offers women few health benefits.

In summary, whatever the motivation for today’s more “defensive” approach to delivery, it is not resulting in better outcomes for babies or their mothers. This lack of benefit stands in striking contrast to the risks and costs outlined below.
Physiological Costs and Risks of Cesarean Deliveries for Mothers and Babies

In contrast with the negligible evidence of benefit, there is considerable evidence that cesarean deliveries put women at risk for obstetric hemorrhage and infection—the most frequent causes of severe maternal morbidity (disease or complications), and the two leading causes of hospital readmission in the first 30 days after delivery. These risks to women’s health rise with each additional cesarean surgery.

Besides these short-term risks, significant long-term consequences for women’s reproductive health are associated with cesarean delivery. They include pain and surgical adhesions as well as a possible increased risk for fertility issues and perinatal complications in subsequent pregnancies. The most serious risk for women undergoing multiple repeat cesarean deliveries is a step-wise, dramatically increased risk for life-threatening hemorrhage and morbidity due to placental implantation problems, including placenta previa and placenta accreta.

One argument for cesarean delivery asserts that this procedure has resulted in improved outcomes and benefits for newborns. However, this assertion is not borne out by the evidence. Cerebral palsy rates have been stable since the mid-1980s, and full-term neonatal outcomes have not improved since the mid-1990s. Moreover, there is strong evidence that babies born by cesarean delivery, particularly when performed without labor (i.e., scheduled), have significantly higher rates of neonatal respiratory problems than those born vaginally.

Psychological Costs of Cesarean Delivery for Childbearing Women

Some women prefer cesarean birth, or view it as a positive experience. However, there is growing evidence that for the majority of women, having a cesarean (compared with giving birth vaginally) is associated with greater psychological distress and illness, including postpartum anxiety, depression, and post-traumatic stress disorder. Cesarean deliveries can have an adverse influence on maternal-infant contact at birth, women’s satisfaction with and feelings about the birth, their babies’ experiences, and their success with breastfeeding.

The Economic Cost of Increased Cesarean Delivery Rates in California

There are many problems with the current maternity care payment system that lend further support and urgency to our call for a public agenda for maternity care safety and quality. Beyond the medical burden to mothers and babies, the financial burden of cesarean deliveries is enormous. California payers pay facility charges for cesarean that are nearly double those for vaginal delivery—$24,700 and $14,500, respectively. The rising cesarean rates represent an increasing financial burden to the state (Medi-Cal), commercial insurers, and women and their families. The Pacific Business Group on Health (PBGH) estimates that the additional cesarean deliveries performed above the year-2000 rate cost public and private payers in California at least $240 million in 2011 alone. PBGH also estimates that between $80 million and $441.5 million a year can be saved by reducing cesarean rates in California, with the amount of the savings dependent on the size of the reduction.

The combination of financial burden, troubled national and state economies, and the lack of medical evidence to justify the rise in cesarean rates has spurred purchasers and payers to seek...
ways to reduce the rate of cesarean deliveries. This white paper is designed to point the way to potential solutions.

3. MEDICAL FACTORS DRIVING THE RISE IN CESAREAN DELIVERIES

The costs and risks of cesarean delivery and the negligible benefits for most mothers and babies point to the urgent need for efforts to bring about lower rates. These efforts will only be effective if they are based on an understanding of the drivers of the rise in rates. Do medical factors explain and justify the increasing use of cesarean delivery? The evidence suggests that they do not.

Primary Cesareans

The medical indications that account for the majority of primary (first) cesarean deliveries are “labor complications”—that is, either dystocia or failure to progress in labor. These indications not only account for most of the rise in rates over the past decade, but are also responsible for 80 to 90 percent of the variation in first-birth cesarean delivery rates among hospitals and providers. Not surprisingly, these indications also have the least well-defined scientific evidence to support them. The quality improvement and payment reform efforts outlined in this white paper focus in particular on reducing first-birth cesareans among low risk women done in the course of labor.

There is growing evidence to support the claim that provider-dependent indications (i.e., those that rely on provider judgment) combined with provider discretion contribute significantly to the overall increase in both primary and repeat cesareans. For example, a study of primary cesarean deliveries showed that more subjective or discretionary indications such as fetal heartbeat, labor arrest, and the size of the fetus accounted for larger proportions of cesarean deliveries than more objective indications such as the orientation of the baby or umbilical cord and placental positions.

The fact that cesarean delivery rates and practices vary widely among states, regions, hospitals, and providers for both primary and repeat cesareans demonstrates that hospitals and clinicians can differ in their responses to the same conditions. This fact suggests the need for more precise clinical practice guidelines and/or greater accountability and incentives for following them.

Repeat Cesareans Are Replacing Vaginal Birth after a Prior Cesarean (VBAC)

A prior cesarean is the single largest contributor to the rise in cesarean delivery rates among all indications. Since 1999, about 90 percent of women with a prior cesarean have had their subsequent delivery by cesarean. The majority of women with a prior cesarean are good candidates to have their subsequent children by vaginal birth. Yet despite the conclusion of a 2010 National Institutes of Health (NIH) Consensus Development Conference panel that VBAC was a “reasonable option” for most women with a previous cesarean, repeat cesarean rather than vaginal birth has become common obstetric practice. In 2002, 11.7 percent of all women giving birth had had a prior cesarean, and this number continues to rise. The lack of access to VBAC means that most subsequent births will be repeat cesareans. Without a widespread change in this obstetric practice and the policies that influence it, the percent of women in the U.S. having repeat cesareans will continue to rise as the primary cesarean rate rises.

The Fallacy of Maternal Request Cesareans

Popular accounts in the national media during the early and mid 2000s created the misleading impression that maternal request among women “too posh to push” was a significant driver
of the high cesarean rate. However, researchers have not found evidence to support this explanation. Nationally representative surveys conducted in 2006 by Listening to Mothers-II found that providers made the cesarean delivery decision more than twice as often as mothers, under all conditions. In addition, at least one woman in four reported feeling pressure from a health care professional to have a cesarean. Fewer than 1 percent of women reported choosing a non-medically indicated cesarean for their first birth.

4. EXPANDING THE LENS: SOCIOCULTURAL FACTORS ASSOCIATED WITH THE RISING CESAREAN DELIVERY RATE—A CMQCC ANALYSIS

Since the rise in cesarean rates cannot be explained medically, we must look further for the factors that are influencing decision-makers and driving the rise in cesarean deliveries. CMQCC conducted qualitative research with obstetric clinicians (physicians, nurses, and certified nurse midwives) that offers insight into a number of sociocultural factors affecting the rise in cesarean delivery. The interviews point to wider patterns of thinking and illuminate subtle, difficult-to-document influences on decision-making that go beyond medical factors.

Medico-Legal Factors Affecting Cesarean Rates

The practice of defensive medicine is likely to be one reason for the high cesarean rate. According to a recent study in the New England Journal of Medicine, obstetrician-gynecologists are among the medical specialties most likely to face a malpractice claim, and they have a higher risk of an indemnity payment exceeding $1 million. Many experts feel that the current medico-legal climate in general and fear of malpractice litigation in particular force physicians to practice “defensive” medicine. States’ liability environment also has been shown to have an impact on rates of VBAC and cesarean delivery.

Clinician Attitudes and Practices

The sharp rate of increase in cesarean rates has raised questions among observers about the “gray-zone” areas that call for physician judgment. A predominant theme in CMQCC’s interviews was physician practice variation and the hospital and cultural factors (notably, those related to time efficiencies) that affect such variations. Many nurses talked about the timing of cesareans done during labor, citing the competing demands on physicians for clinic appointments and their desire for balance between work and the rest of life. Institutional pressures and the pace of high-volume facilities was another factor mentioned, along with physicians’ impatience with labor progress—a response that can be exacerbated in clinicians and mothers alike by the use of inductions, which can set up an expectation for a quick birth experience.

Economic Factors

Misaligned or perverse incentives have been described as significant barriers to reducing the cesarean rate. For example, a significant portion of the obstetric global fee is delivery-based, creating incentives for obstetricians to deliver their own patients when they are on call. This, in turn, increases the desire and pressure for physicians to perform more scheduled labor inductions for their call nights. From a physician’s perspective, a vaginal birth after a prior cesarean is typically a long labor, with increased risk exposure and less economic reimbursement than a repeat cesarean delivery. Not surprisingly, few physicians advocate for supportive VBAC policies at their facilities. Given current payment policies, it is not a rational economic choice for either physicians or hospitals.

A complex constellation of factors, then, is at play in obstetric practice. CMQCC’s interviews
referred to several others that also influence the rising cesarean rate: women’s lack of information about and understanding of the risks of non-medically indicated cesarean; the need for better clinical training in communication and teamwork skills; the lack of training around normal birth in most residency training programs based in high-risk University centers; and clinician anxieties about the underlying legal climate.

**Childbearing Women’s Need for Education**

Although maternal request does not appear to be driving the rise in the cesarean delivery rate, there is evidence that women are more amenable to, or less able to resist, cesarean delivery for indications that arise in the course of labor than women were in the past. CMQCC’s clinician interviews reveal that childbearing women lack information about childbirth options and risks, and need opportunities to be educated about them. Rather than reinforcing such messages by valuing childbirth education and normal, vaginal delivery, many cultural sources, such as reality-based television and some websites, convey the incorrect message that cesarean deliveries are a risk-free way to preserve perineal and sexual integrity and avoid the pain of labor.

**5. STRATEGIES FOR CHANGE**

This white paper discusses the steep rise in cesarean delivery rates in a single decade, the large variations that point to the influence of physician discretion, the high costs and risks associated with cesarean deliveries, and the lack of medical justification for many cesareans. Providers, payers, purchasers, and childbearing women all need to ask whether society can afford the costs and complications of increasing cesareans, and whether they can work together toward solutions. A first step is for all stakeholders to support cultural change to recognize the value of normal vaginal birth for mothers and their babies.

All of the factors discussed above point to the need for a multi-pronged set of strategies; no single approach is likely to have the desired impact. The most promising strategies include, but are not limited to, clinical improvement strategies, with careful examination of labor management practices to reduce those that lead to the development of indications for cesarean deliveries; hospital policy and payment reform to eliminate negative or perverse incentives; provider and consumer education; and public reporting (transparency). We begin with quality improvement strategies and the related issues.

**QUALITY IMPROVEMENT (QI)**

**Clinical Improvement Strategies**

Restoring the balance will not be an easy or quick proposition, and will require coordinated efforts by multiple stakeholders. Clinical improvement strategies are more than just a matter of adopting and implementing practice guidelines. Improvements arise through tactics that include audit and feedback, education, and strong peer review among physicians. Incentives should be used to motivate physicians and hospital administration, along with nursing staff, to engage together in changing the culture on labor and delivery units.

Hospitals should examine their care processes and consider appropriate QI projects to reduce admissions in early labor, reduce elective inductions in first-time mothers, improve diagnostic and treatment approaches for labor complications, and/or encourage vaginal birth after cesarean through hospital policies and supportive care during labor. Several groups in the United States are working to develop formal Quality Improvement Toolkits with strategies such as these, to stimulate cesarean delivery reduction programs at local, hospital system, and state levels.
Establishing Targets for U.S. Cesarean Delivery Rates

What is an optimal target rate for an upper limit of cesarean deliveries as a percentage of all births? This question remains to be resolved. In 1985, the World Health Organization proposed a target for the total cesarean delivery rate for all countries of 15 percent—a target that has been widely ignored in the U.S. A 2000 report by the American College of Obstetricians and Gynecologists (ACOG) reached conclusions similar to those presented in this white paper, focusing particular attention to NTSV (low-risk, first-birth) cesareans with a proposed target of 15.5 percent NTSV rate. The Healthy People 2020 objectives, which are more modest than their 2010 predecessor, call for a 23.9 percent NTSV rate and for a doubling of the percentage of vaginal births after a prior cesarean. Some hospitals and geographic areas already meet these targets, while others are far off.

Measurement Issues and Opportunities

The need for usable, valid quality measures in maternity care is rapidly gaining national attention; and the success of quality improvement efforts depends on the development, implementation, and tracking of such measures. There are two foundational requirements for the success of a multi-strategy initiative to improve maternal quality care and reduce cesarean delivery rates: first, recognition that change is necessary, desirable, and achievable; and second, a reputable source for reliable, timely, and relevant quality data to drive the change efforts. Some hospitals are able to provide such data for internal efforts, but many more are not; and in most cases, outcome data are not publicly reported in sufficient detail or in a timely way.

A California Maternal Data Center with the capacity to provide a robust source of near-real-time outcome data for large-scale maternity quality improvement projects is being created through a collaboration between CMQCC and several state agencies and other stakeholders. Initial planning support has come from the California HealthCare Foundation.

PAYMENT REFORM

Financial incentive strategies can redirect clinical practices to change the cesarean delivery rate trajectory. Given the budget issues faced by all payers (Medicaid and commercial) and the considerable dollars at stake, reforming payment for cesarean deliveries should be a priority for policy makers and payers. Payment reform could create the proverbial “burning platform” that spurs change more quickly than other strategies. The first step is to remove the perverse financial incentives that currently help drive the rising rate.

Payments can be used to reward providers for high-quality clinical practice and good patient outcomes, and/or to encourage specific practices (e.g., VBAC) or discourage others (e.g., labor induction and repeat cesarean deliveries). Non-payment for undesired services will generate controversy, as there are individual justifications for some of these services. Payment can be linked to provider performance, or bundled/blended to enable health care organizations to make internal quality improvement decisions. Maternity payments should be part of a value-based purchasing program similar to Medicare. An example of a blended payment is a single payment to a hospital for “birth” that is a blend of vaginal and cesarean rates. This sidesteps individual circumstances and any post-hoc review of a particular birth or provider, and rewards hospitals that have lower cesarean rates. It thus keeps the QI activity local rather than having it driven by government or other stakeholder groups.
EDUCATION AND PUBLIC REPORTING

Educating the Public and Clinicians, and Encouraging Normal Childbirth

This white paper has demonstrated that despite the abundance of reputable online sites for information on pregnancy and childbirth, most women enter the hospital with little knowledge of common procedures, their indications and risks. There is also need for education among clinicians and other important stakeholders, including payers, purchasers and public health officials, who have limited understanding of the disconnect between dollars spent and outcomes achieved in U.S. maternity care.

A coordinated effort by many organizations and individuals is needed to address these information and awareness gaps, not only about the bigger picture but also about specific ways that the cesarean rate can be lowered through the strategies outlined above. Gaps in clinical awareness and education can be overcome through targeted messages in continuing education offered by professional groups such as ACOG, the Association of Women’s Health, Obstetric and Neonatal Nurses (AWHONN), and the American College of Nurse Midwives (ACNM), and by other organizations. The endorsement and adoption of the NTSV measure for cesarean delivery by the National Quality Forum and The Joint Commission has raised clinical awareness of the issue. As more hospitals prepare to report on this measure, organizations, including CMQCC, can and will develop educational webinars and information sessions directed at clinicians. Not all obstetric clinicians see the rising cesarean rate as a problem, or understand that efforts to reduce it will require clinical practice change. Educational efforts are necessary, though not sufficient, to ensure lower cesarean delivery rates. To accomplish this goal, targeted and multiple clinical improvement strategies are needed.

ACOG’s revised policy on vaginal birth after a prior cesarean is a positive step, together with the strong scientific evidence for the NIH recommendation that “most women” who are good candidates for VBACs “should be counseled about VBAC and offered a trial of labor.”5 Nevertheless, it will likely take persistent pressure from childbearing women and advocates for evidence-based practice in childbirth, supported by public reporting of VBAC availability at the hospital level, to reverse the current trend and make vaginal birth after a prior cesarean more widely available.

Public Reporting: Transparency for Providers and the Public

Public reporting can aid consumer health care decision-making and incent or pressure providers to improve their performance. Although the experience of states such as Virginia shows that public reporting on websites is not sufficient to stabilize or reduce the cesarean delivery rate, public reporting and transparency can be an important strategy when combined with others including payment reform, education, and advocacy.

6. CONCLUSION: WHAT CAN AND SHOULD BE DONE?

This white paper presents evidence that rising cesarean delivery rates and their associated health and financial costs should be a matter of serious concern for a wide range of Americans. Those who bear the impact include childbearing women and their families, patient advocates, obstetric clinicians, payers, employers, and health plans. The costs and risks of cesarean delivery are particularly disturbing in view of the fact that the current rate of 33 percent is not associated with any additional health benefits in comparison with the 1998 rate of 22 percent. The steep rise in the cesarean delivery rate has been driven by many factors, some relating to medical practice and some reflecting larger sociocultural shifts. Not surprisingly, narrowly defined
approaches have had little impact on reducing cesarean delivery rates. New practices are now deeply embedded and will be resistant to change.

Based on our review of the existing research, data on the variations in cesarean rates in California and elsewhere, and experience with effective quality improvement techniques, we recommend that the following multiple approaches, or a subset of them, be undertaken simultaneously, as appropriate to the specific local context. Many of these interventions interact positively with and reinforce each other. (The recommendations are presented in greater detail on page 65.)

**CMQCC Recommendations to Reduce Cesarean Delivery**

**Quality Improvement**
1. Make vigorous use of a balanced set of perinatal quality measures in all hospitals. These can be used in the payment reform schemes, public reporting, and to drive QI activities.
2. Institute systemic and rigorous audit and feedback, including local benchmarking, with transparent reporting.
3. Foster statewide QI activities (toolkits and collaboratives) for improving labor practices including tools, implementation strategies and local change efforts.
4. Encourage VBACs.

**Payment Reform**
5. Use payment reform and public reporting to focus providers’ attention on opportunities for quality improvement, including a Value-Based Purchasing program and blended payment approach for hospitals.
6. Implement simple medical liability reforms such as “safe harbors” for providers following “best practice” policies and protocols.

**Education**
7. Establish a state-wide maternal quality agenda to foster awareness around health consequences of perinatal outcomes.
8. Further the maternal quality agenda and increase public engagement with education, public service announcements, celebrity spokespersons, and shared decision tools.
Safe Prevention of the Primary Cesarean Delivery

Abstract: In 2011, one in three women who gave birth in the United States did so by cesarean delivery. Cesarean birth can be life-saving for the fetus, the mother, or both in certain cases. However, the rapid increase in cesarean birth rates from 1996 to 2011 without clear evidence of concomitant decreases in maternal or neonatal morbidity or mortality raises significant concern that cesarean delivery is overused. Variation in the rates of nulliparous, term, singleton, vertex cesarean births also indicates that clinical practice patterns affect the number of cesarean births performed. The most common indications for primary cesarean delivery include, in order of frequency, labor dystocia, abnormal or indeterminate (formerly, nonreassuring) fetal heart rate tracing, fetal malpresentation, multiple gestation, and suspected fetal macrosomia. Safe reduction of the rate of primary cesarean deliveries will require different approaches for each of these, as well as other, indications. For example, it may be necessary to revisit the definition of labor dystocia because recent data show that contemporary labor progresses at a rate substantially slower than what was historically taught. Additionally, improved and standardized fetal heart rate interpretation and management may have an effect. Increasing women’s access to nonmedical interventions during labor, such as continuous labor and delivery support, also has been shown to reduce cesarean birth rates. External cephalic version for breech presentation and a trial of labor for women with twin gestations when the first twin is in cephalic presentation are other of several examples of interventions that can contribute to the safe lowering of the primary cesarean delivery rate.

Background
In 2011, one in three women who gave birth in the United States did so by cesarean delivery (1). Even though the rates of primary and total cesarean delivery have plateaued recently, there was a rapid increase in cesarean rates from 1996 to 2011 (Fig. 1). Although cesarean delivery can be life-saving for the fetus, the mother, or both in certain cases, the rapid increase in the rate of cesarean births without evidence of concomitant decreases in maternal or neonatal morbidity or mortality raises significant concern that cesarean delivery is overused (2). Therefore, it is important for health care providers to understand the short-term and long-term tradeoffs between cesarean and vaginal delivery, as well as the safe and appropriate opportunities to prevent overuse of cesarean delivery, particularly primary cesarean delivery.

Balancing Risks and Benefits
Childbirth by its very nature carries potential risks for the woman and her baby, regardless of the route of delivery. The National Institutes of Health has commissioned evidence-based reports over recent years to examine the risks and benefits of cesarean and vaginal delivery (3) (Table 1). For certain clinical conditions—such as placenta previa or uterine rupture—cesarean delivery is firmly established as the safest route of delivery. However, for most pregnancies, which are low-risk, cesarean
How One Hospital Brought Its C-Section Rate Down Fast

Faced with the possible loss of an important insurer, one California hospital rapidly reduced excessive cesarean section rates in part by sharing each physician's rate with everyone in the obstetrics department.

Holly Grim from Huntington Beach, Calif., gave birth naturally to an 8-pound girl, Agnes, at Hoag Memorial Hospital on April 10.

By Kaiser Health News  May 9, 2015 | 12:01 a.m. EDT

NEWPORT BEACH, Calif. — Hoag Memorial Hospital Presbyterian, one of the largest and most respected facilities in Orange County, needed to move quickly.

A big insurer had warned that its maternity costs were too high and it might be cut from the plan's network. The reason? Too many cesarean sections.

"We were under intense scrutiny," said Dr. Allyson Brooks, executive medical director of Hoag's women's health institute.

The C-section rate at the time, in early 2012, was about 38 percent. That was higher than the state average of 33 percent and above most others in the area, according to the California Maternal Quality Care Collaborative, which seeks to use data to improve birth outcomes.

Within three years, Hoag had lowered its cesarean section rates for all women to just over a third of all births. For low-risk births (first-time moms with single, normal pregnancies), the rate dropped to about
a quarter of births. Hoag also increased the percentage of women who had vaginal births after delivering previous children by C-section.

In medicine, this qualifies as a quick turnaround. And the story of how Hoag changed sheds light on what it takes to rapidly improve a hospital’s performance of crucial services, to the benefit of patients, insurers and taxpayers.

Decreasing C-sections results in “better health to mothers and better health to babies and lower costs,” said Stephanie Teleki, senior program officer at the California HealthCare Foundation, which helped fund the data collection and analysis by the California Maternal Quality Care Collaborative. “That’s like a nirvana moment in health care.”

Experts have long been troubled by the wide variation of C-sections among hospitals nationally. (In California, the rates range from 18 percent to 56 percent.) Certainly there are instances in which C-sections are typically recommended — such as a baby in breech position. But the disparities suggest that decisions are being driven by factors other than medical necessity — such as doctors’ time constraints and malpractice concerns.

Over the past few years, there has been a coordinated push to cut C-section rates in other states and in births covered by Medicaid, the health coverage program for low-income Americans.

The Centers for Disease Control and Prevention is funding projects to reduce scheduled births that aren’t required medically. The Joint Commission, which accredits hospitals, is requiring hospitals with more than 1,100 births annually to report on their cesarean births and elective deliveries. The March of Dimes launched an education campaign to urge women to wait for natural labor, and the American College of Obstetricians and Gynecologists has publicly proposed ways to reduce the rates, such as using a doula to support women in labor.

Still, many hospitals don’t act until dollars are at stake, said Dr. Elliott Main, medical director of the California Maternal Quality Care Collaborative. That’s what happened with Hoag, which Main said is now becoming a model for other hospitals.

“In quality improvement, we call it ‘the burning bridge,’” he said. “You can’t just stay still. You’ve got to move.”
At Hoag, where more than 6,000 babies are born each year, Brooks and other administrators knew that they had to focus on changing the mindset and behavior of physicians. "Hospitals don't do C-sections, doctors do," she said.

So they took some aggressive steps. Among them was obtaining each doctor's C-section rate from Dr. Main's group. First, they shared the data with all the physicians in the department without names -- then decided to reveal the names. Suddenly, everyone knew who had exceeded or come in under the average.

"There was a lot of upheaval," Dr. Jeffrey Ilieck, a community OB-GYN and the hospital's obstetrics department chair. "None of us want to look bad in front of our peers. ... And some looked horrible."

Some physicians reacted with surprise and frustration. Initially, many attributed the high rates to the patients, saying they were older, had more complicated pregnancies or demanded scheduled C-sections. Others questioned how the numbers were gathered.

Dr. Amy VanBlaricom, an OB-GYN who delivers about 25 to 30 babies a month, said she wasn't opposed to sharing the data. But she said doctors were worried that the rates would be used to penalize them rather than to drive improvement.

"It's very heated," she said. "We should use this data as an opportunity rather than a polarization topic."

VanBlaricom already tracked her own rates, which she said fell in the middle of the pack, and has only seen a small drop since. But she said being aware that Hoag is monitoring the C-sections has changed how she thinks about her practice and has encouraged her to let women remain in labor longer.

That's what Hoag administrators were aiming for -- a realization among doctors that C-sections should not be undertaken lightly. They carry surgical risks, including serious infection and blood clots, and require longer hospital stays.

"Doctors and patients look at cesareans as an easy way to time the birth," said Dr. Marlin Mills, chief of perinatology at the hospital. "But a C-section is not benign. It's a big surgery."

The costs are also well-documented. Surgical births cost nearly $19,000, compared with about $11,500 for vaginal births, according to the Pacific Business Group on Health, an organization of employers that is also working to bring down C-section rates around the state.

The business group worked with the hospital on the financial side. It enlisted the help of some of the biggest local employers, including Disney, and another insurer, Blue Shield, to adjust payments so the hospital didn't earn more from elective C-sections than vaginal births.

"The data helped people achieve the culture change," said Brynn Rubinstein, senior manager for the business organization. "Hopefully payment reform will help us sustain it."

In addition, the hospital set new scheduling rules. In the past, doctors could simply call in with the woman's due date and schedule the birth. Now, they would have to fill out a detailed form, with some requests needing special approval.

The hospital also stepped up its patient education, encouraging women to wait for labor to come naturally. If patients did want an elective C-section, they would have to sign an easy-to-understand consent form in the doctor's office that detailed the risks.

Nurses were asked to help, by using techniques to avoid C-sections for women already in labor. They got women walking around the unit to reduce their chances of needing the surgery. The nurses received end-of-year bonuses if they helped the hospital reach certain goals on reducing surgical births.

The hospital opened an obstetrics emergency department and gave more responsibility to "laborists," doctors who were there around the clock to respond to emergencies, monitor women in labor and deliver babies.
Cesarean births require major surgery, typically resulting in a longer recovery for mothers than natural births.

Dr. Alex Deyan, who delivered more than 500 babies at the hospital last year, used to turn away patients who wanted vaginal births after cesarean sections. With a busy private practice, Deyan said he couldn't always be immediately available if labor didn't go as expected and a woman needed a C-section. That changed with the laborist program.

"Having in-house doctors 24/7 is a huge benefit," Deyan said. "I can be a little more patient."

**Good for Patients, Too**

Holly Grim appreciated Hoag’s approach. She knew she didn't want a C-section with her second baby. Her first labor at another hospital in December 2013 was long and painful and ended with a cesarean section that kept her in the hospital for days. Her son was healthy, but she said, "this wasn't exactly how I had it planned – not even close."

This time, she needed to get back on her feet quickly so she could chase after her 16-month-old. She decided to switch doctors and hospitals. And in early April, she got her wish -- giving birth naturally to an 8-pound girl, Agnes, at Hoag.

The day after Agnes was born, the family was packing up to go home. She didn't have any restrictions on lifting or driving, and she wasn't in severe pain. This, she said, is how childbirth is supposed to be.

"I'm feeling really good," she said as she nursed Agnes, wrapped in a blanket decorated with pastel footprints. "I'm relieved I'll be able to run around after my son."

*This article was written by Anna Gorman ([agorman@kff.org](mailto:agorman@kff.org)) for Kaiser Health News, and published here with permission.*

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### News Rankings & Consumer Advice

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Topic 2: Imaging for Low Back Pain
Meeting Materials
Choosing Wisely® Recommendation Analysis: Prioritizing Opportunities for Reducing Inappropriate Care

IMAGING FOR NONSPECIFIC LOW BACK PAIN
IMAGING FOR NONSPECIFIC LOW BACK PAIN

Evidence Justification

Five clinical specialty societies recommend against the use of imaging for nonspecific low back pain. We summarize the reasoning provided by the clinical societies to justify the inclusion of this service, including assignment of this service into one of 5 evidentiary categories of “wasteful” services arising from the evidence on benefits, risks, and costs (Gliwa, 2014).

American Academy of Family Physicians
Don’t do imaging for low back pain within the first six weeks, unless red flags are present.

American Association of Neurological Surgeons and Congress of Neurological Surgeons
Don’t obtain imaging (plain radiographs, magnetic resonance imaging, computed tomography [CT], or other advanced imaging) of the spine in patients with nonspecific acute low back pain and without red flags.

American College of Occupational and Environmental Medicine
Don’t initially obtain X-rays for injured workers with acute nonspecific low back pain

American College of Physicians
Don’t obtain imaging studies in patients with nonspecific low back pain

North American Spine Society
Don’t recommend advanced imaging (e.g., MRI) of the spine within the first six weeks in patients with nonspecific acute low back pain in the absence of red flags.

Specialty Society Rationale
Low back pain is among the most common causes of disability and lost productivity in the United States, and more than 80% of the population will experience low back pain in their lifetime (Rubin, 2007). Physicians perform tests such as computed tomography (CT) scans, magnetic resonance imaging (MRI), and X-rays for low back pain to determine the presence of serious
underlying conditions, such as cancer or spinal infection. Clinical guidelines state that low back pain can be adequately managed without imaging and instead refer to physical examination, medical history, initial pain management (as needed), and physical therapy as the best first course of action (Davis et al., 2008). Imaging may be warranted if the patient experiences no improvement in six weeks, or when more complicating factors are present, such as severe progressive neurologic deficit, history of cancer, trauma, fracture, or infection, or when symptoms are present to indicate a serious underlying condition.

In cases of uncomplicated low back pain, however, patients are unlikely to benefit from imaging studies and may even do worse relative to patients who utilize conservative measures such as heat, over-the-counter pain medication, and physical exercise (American Academy of Family Physicians, 2012). The results of imaging studies are unlikely to alter clinical management for back pain since most findings cannot be tied to a specific anatomic cause (Manek, 2005). The likelihood of identifying a serious underlying condition of lower back pain with imaging is also rare. One study estimates that only 0.01% of patients with low back pain in primary care settings have spinal infection, and 0.7% have metastatic cancer (Deyo et al., 1992; Jarvik et al., 2002). Most patients with low back pain experience improvements in pain and function within four weeks with no serious improvements from imaging, demonstrating little gain for the potential risks involved (Chou, 2011).

Routine imaging can subject patients to unnecessary harm, by finding abnormalities that are not clinically relevant that lead to further downstream testing, spinal injections, and in some cases, surgery. Imaging studies may also cause unnecessary exposure to radiation. Lumbar radiography is responsible for the greatest proportion of total radiation dose from medical imaging in the U.S. given its frequency of use (Fazel et al., 2009). One study estimated that patients who received an MRI during the first month of back pain were eight times more likely to have surgery and experience a five-fold increase in medical expenses with no observed gains in recovery time as compared to patients undergoing no imaging (Webster and Cifuentes, 2010). The cost of imaging studies is often substantial. CT scans and MRI for the lower back are typically over $1000, while X-rays are approximately $300 (Consumer Reports Health and American Academy of Family Physicians, 2012).
Current Use and Variation in Practice

- **Estimated population affected:** 1,116,000–2,560,000*
- **Excess Cost of Practice:** $82 million – $226 million*
  *Estimates are for Medicare population only


Even though all relevant specialty society guidelines support initial management without imaging for patients with uncomplicated low back pain, many physicians continue to order routine imaging without a clear clinical indication. A recent study of Medicaid beneficiaries in Washington estimated that among enrollees with a primary diagnosis of low back pain, 14% received an X-ray, CT scan, or MRI within 4 weeks of diagnosis (Washington Health Alliance, 2014). Another retrospective study of Medicare claims data from 2009 evaluating the prevalence of low-value services found that among a representative sample of approximately 1.4 million beneficiaries, 54,000–122,000 (4% - 9%) of individuals with a diagnosis of low back pain received non-indicated imaging, corresponding to 1.1 – 2.5 million individuals for the entire Medicare population (Schwartz et al., 2014). The lower range limits imaging studies to those performed within six weeks of first diagnosis of low back pain, and excludes diagnoses of cancer, neurological impairment, endocarditis, and symptoms of other potentially serious complications. Another retrospective analysis using Medicare claims data between 2006 and 2011 to compare rates of low-value services estimated that among 2 million beneficiaries with uncomplicated low back pain, approximately 23% received an X-ray, CT scan, or MRI within six-weeks of initial diagnosis (Colla et al., 2014).

The Schwartz study estimated that annual Medicare spending on imaging for uncomplicated low back pain ranged from $82 million - $226 million (2014). These estimates do not include any costs associated with follow-up care yielded by test results, so the potential for cost-savings from reducing overuse may be higher.
We conducted unstructured interviews with national clinical experts representing the fields of radiology and internal medicine to understand the multi-faceted influences that drive the use of imaging studies for uncomplicated low back pain, as well as the most effective methods to reduce inappropriate use of these services. Key themes and lessons from these conversations are summarized below.

A range of issues contribute to the overuse of imaging for low back pain. First, physicians noted that patient preferences and demand play a significant role. Patients living with low back pain want a clear diagnosis and confirmation that a more serious underlying condition is not present. Many patients are unaware of the risks associated with unnecessary imaging, and many experts interviewed felt they lack the resources and time to engage patients in a conversation of the potential harms and wasteful spending involved. As physicians take on more administrative tasks and increased caseloads, experts noted that referring a patient for additional testing can be more expedient than explaining to patients why further imaging may not benefit cases of uncomplicated low back pain. Linking physician bonuses and quality scoring to patient satisfaction has also potentially exacerbated this problem, as patients tend to equate more care with better care, incentivizing physicians to provide imaging for low back pain even when not indicated. Experts feel that they are never penalized by patients for ordering imaging tests that are unnecessary, but receive negative ratings when a patient expects imaging and does not receive it. Physicians underscored the importance of further development and dissemination of patient education materials, like those included as part of the Choosing Wisely® campaign, to help raise awareness of over-testing and to aid patients in understanding the major considerations involved in imaging decisions.

Physicians interviewed also emphasized financial incentives as a major driver of overuse in this area. Fee-for-service systems that reward physicians based on volume incentivize self-referrals. Advanced imaging technology is expensive to acquire and operate, so practices with MRI or CT scan machines may be motivated to increase utilization of these technologies. Experts also noted that practices receive higher reimbursement for MRI compared to conventional imaging technology, providing further impetus for physicians to prescribe expensive imaging. Financial incentives may also distort patient demand. Experts noted that insurance policies that allow for the provision of diagnostic studies with limited co-payments mask the cost of these procedures and leave patients immune to the expense of unnecessary, wasteful imaging tests. Some
experts advocated for value-based insurance designs that instill higher deductibles or co-payments for services that do not meet appropriateness guidelines and are shown to have little to no benefit for patients.

Physician education and training may also be a factor in overuse of diagnostic imaging for uncomplicated low back pain, as some physicians fail to take a comprehensive medical history to document the lack of weakness, radiculopathy, or sensory loss that makes imaging unnecessary. Experts advocated for greater decision-support tools at the point of care to help busy physicians avoid ordering unnecessary testing.

Experts also tort reform as an important issue, but perceived concerns for liability to be less of a concern in this area. Physicians explained that it is exceedingly rare that low back pain results in a life-threatening situation, unlike other clinical areas where internal bleeding or tumors could potentially be missed by forgoing imaging.

Though imaging for uncomplicated low back pain remains an area of significant waste, some levers are in place to reduce unnecessary care in this area. First, health plans commonly require preauthorization for outpatient imaging services, including MRI and CT scans, and some do not reimburse imaging for low back pain within six-weeks of the initial diagnosis. Experts noted, however, that there is still clearly issues with how criteria are being implemented and enforced, and that more could be done to standardize criteria and limit inappropriate use of services. Some experts cautioned that efforts should be made to streamline preauthorization policies as to the extent possible, since the administrative burden on physicians to receive approval for indicated imaging tests can be a separate source of inefficiency. Experts noted that physician organizations, such as the American College of Physicians (ACP) and the National Physician Alliance, have launched initiatives to educate physicians on the overuse of imaging for low back pain. Similar to the Choosing Wisely campaign, the ACP’s “High Value, Cost-Conscious Care Initiative” has adopted low back imaging as one of its major priority areas, and has created patient summaries, physician videos, and other training materials to help increase awareness and education on over testing in this area. Experts also emphasized how payment reform and the evolution towards capitated reimbursement and accountable care delivery systems may also reduce financial incentives for over-testing.
Summary Statement: Drivers of Overuse and Opportunities for Improvement

Based on our research and conversations with national experts, this section synthesizes the major factors related to overuse, as well as any opportunities for improvement or existing best practices for reducing wasteful care.

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<td>and develop talking points</td>
<td>MRI and CT scan services to control</td>
</tr>
<tr>
<td>for physicians to discuss</td>
<td>overutilization and limitation on coverage</td>
</tr>
<tr>
<td>with patients on the risks/</td>
<td>for low back pain imaging ordered within</td>
</tr>
<tr>
<td>harms of unnecessary</td>
<td>six weeks of initial diagnosis</td>
</tr>
<tr>
<td>screening</td>
<td>Physician and patient education</td>
</tr>
<tr>
<td>Make greater use of global</td>
<td>campaigns led by physician organizations emphasizing</td>
</tr>
<tr>
<td>payment arrangements that</td>
<td>the degree of overuse of</td>
</tr>
<tr>
<td>reduce incentives to over-test</td>
<td>low back pain imaging and its potential</td>
</tr>
<tr>
<td>patients</td>
<td>for harm</td>
</tr>
<tr>
<td>Tier co-payments based on</td>
<td>Capitated reimbursement</td>
</tr>
<tr>
<td>value to increase patient</td>
<td>and accountable care organization delivery systems</td>
</tr>
<tr>
<td>accountability for those</td>
<td>that help reduce financial</td>
</tr>
<tr>
<td>demanding unnecessary</td>
<td>incentives for over-testing</td>
</tr>
<tr>
<td>services</td>
<td></td>
</tr>
<tr>
<td>Implement decision-support</td>
<td></td>
</tr>
<tr>
<td>systems at the point of order</td>
<td></td>
</tr>
<tr>
<td>to assist physicians in</td>
<td></td>
</tr>
<tr>
<td>performing a comprehensive</td>
<td></td>
</tr>
<tr>
<td>medical history and</td>
<td></td>
</tr>
<tr>
<td>determining if further</td>
<td></td>
</tr>
<tr>
<td>imaging is necessary</td>
<td></td>
</tr>
<tr>
<td>Explore options for tort</td>
<td></td>
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<tr>
<td>reform that reduce</td>
<td></td>
</tr>
<tr>
<td>physician’s liability for</td>
<td></td>
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<tr>
<td>applying appropriate clinical</td>
<td></td>
</tr>
<tr>
<td>criteria</td>
<td></td>
</tr>
<tr>
<td>Category</td>
<td>Score</td>
</tr>
<tr>
<td>----------------------------------------------</td>
<td>-------</td>
</tr>
<tr>
<td>Level of overuse</td>
<td>★★★</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>Magnitude of individual patient harm</td>
<td>★★★</td>
</tr>
<tr>
<td>Ease of overcoming patient, clinician, and system barriers to reduce inappropriate care</td>
<td>★★</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>Opportunity to leverage existing change programs and policy efforts</td>
<td>★★★</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>Amount of potential savings</td>
<td>★★★</td>
</tr>
</tbody>
</table>
Low Back Pain Imaging: California Data for 2014 and Related Activities

The issues associated with patient safety and wasteful spending due to unnecessary and inappropriate imaging for low back pain has gained increasing attention. The Choosing Wisely® campaign has targeted imaging for low back pain as a high-priority service to target, and 5 of the 7 project teams in the second round of the ABIM Foundation initiative to spread Choosing Wisely have adopted low back imaging as an area of focus and the ambitious target of 20% reduction from baseline over the 3-year project. Two of those five teams are in California – the IHA-led team, with Sharp Rees-Stealy in San Diego; and the UCLA/LA County DHS team.

The measure of low back pain imaging, which is a HEDIS measure, assesses “the percentage of members who had a primary diagnosis of low back and who did not have an imaging study (X-ray, magnetic resonance imaging [MRI], computed topography [CT] scan) within 28 days of diagnosis.”

In California, data are available on low back imaging at the plan level for Medi-Cal managed care, commercial HMO, and commercial PPO. Sources include: Department of Healthcare Services for the Medi-Cal Managed Care health plan data, Office of the Patient Advocate (OPA) for HMO/PPO Commercial health plan data, and Integrated Healthcare Association (IHA) for Commercial HMO medical group data. Scores show how well each plan or medical group did at making sure patients with low back pain did not receive unnecessary imaging studies. Higher scores indicate that patients received the right care at the appropriate time.

Related Activities

In addition to annual measurement and reporting at the plan and physician organization, low back imaging has been included in several related efforts in California.

- The Transforming Clinical Practice Initiative led by the Pacific Business Group on Health’s California Quality Collaborative, for which IHA will expand its existing online reporting portal and frequency of data collection. CMMI requested inclusion of imaging for low back pain as a cost of care measure over the 4-year project. During the first year, relative improvement is targeted for 5% in year 1, and 20% in years 2-4.
- Low back pain imaging is one of three measures that will be displayed in an insert in Consumer Reports Magazine in January 2016 as part of the DOCTOR project, in which IHA is participating and contributing data. (Other measures are checking for cancer composite and diabetes care composite.) CR billiard ball symbols will be used, and will display four performance categories that align with the OPA cutpoints of 25th, 50th, 90th percentiles from the previous year.
- California Healthcare Compare, a database created by the California Department of Insurance and launched in September, features data contributed by IHA on low back pain imaging alongside other measures: http://www.cahealthcarecompare.org
- The use of MRIs for low back pain imaging is one of four case studies being used in the Center for Healthcare Decisions’ Doing What Works project. This is a statewide public engagement effort to capture the views and values of low-to-moderate income Californians on the strategies they believe are most acceptable for reducing overuse. Results will be available in Spring 2016.
**Medi-Cal Managed Care**

HEDIS 2014 Use of Imaging Studies for Low Back Pain

<table>
<thead>
<tr>
<th>Plan Name</th>
<th>Rate (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kaiser North - Sacramento</td>
<td>93.02</td>
</tr>
<tr>
<td>Partnership HealthPlan of CA - Sonoma</td>
<td>90.56</td>
</tr>
<tr>
<td>Partnership HealthPlan of CA - Napa/Solano/Yolo</td>
<td>89.17</td>
</tr>
<tr>
<td>Anthem Blue Cross Partnership Plan - San Francisco</td>
<td>89.11</td>
</tr>
<tr>
<td>Alameda Alliance for Health - Alameda</td>
<td>88.58</td>
</tr>
<tr>
<td>Anthem Blue Cross Partnership Plan - Alameda</td>
<td>86.04</td>
</tr>
<tr>
<td>Kaiser South - San Diego</td>
<td>88.00</td>
</tr>
<tr>
<td>Contra Costa Health Plan - Contra Costa</td>
<td>87.85</td>
</tr>
<tr>
<td>Santa Clara Family Health Plan - Santa Clara</td>
<td>86.37</td>
</tr>
<tr>
<td>Anthem Blue Cross Partnership Plan - Tulare</td>
<td>85.90</td>
</tr>
<tr>
<td>Health Net Community Solutions - Sacramento</td>
<td>85.49</td>
</tr>
<tr>
<td>Partnership HealthPlan of CA - Mendocino</td>
<td>85.48</td>
</tr>
<tr>
<td>Central CA Alliance for Health - Monterey/Santa Cruz</td>
<td>85.20</td>
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<tr>
<td>San Francisco Health Plan - San Francisco</td>
<td>84.86</td>
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<tr>
<td>Anthem Blue Cross Partnership Plan - Kings</td>
<td>84.30</td>
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<tr>
<td>Health Plan of San Joaquin - San Joaquin</td>
<td>83.54</td>
</tr>
<tr>
<td>Anthem Blue Cross Partnership Plan - Madera</td>
<td>83.22</td>
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<tr>
<td>Health Net Community Solutions - Tulare</td>
<td>83.20</td>
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<tr>
<td>Anthem Blue Cross Partnership Plan - Sacramento</td>
<td>82.85</td>
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<tr>
<td>Anthem Blue Cross Partnership Plan - Fresno</td>
<td>82.49</td>
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<tr>
<td>Central CA Alliance for Health - Merced</td>
<td>80.35</td>
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</table>

1 **High Performance Level**

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<thead>
<tr>
<th>Plan Name</th>
<th>Rate (%)</th>
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<tbody>
<tr>
<td>CenCal Health - Santa Barbara</td>
<td>81.72</td>
</tr>
<tr>
<td>Molina Healthcare of CA - Sacramento</td>
<td>81.50</td>
</tr>
<tr>
<td>CenCal Health - San Luis Obispo</td>
<td>80.89</td>
</tr>
<tr>
<td>L.A. Care Health Plan - Los Angeles</td>
<td>80.40</td>
</tr>
<tr>
<td>Anthem Blue Cross Partnership Plan - Santa Clara</td>
<td>80.35</td>
</tr>
</tbody>
</table>

**2014 Medi-Cal Managed Care Weighted Average**

<table>
<thead>
<tr>
<th>Plan Name</th>
<th>Rate (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>CalViva Health - Kings</td>
<td>80.23</td>
</tr>
<tr>
<td>CalViva Health - Fresno</td>
<td>79.90</td>
</tr>
<tr>
<td>Health Plan of San Mateo - San Mateo</td>
<td>79.18</td>
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<tr>
<td>Health Net Community Solutions - Stanislaus</td>
<td>77.33</td>
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<td>Community Health Group Partnership Plan - San Diego</td>
<td>77.32</td>
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<tr>
<td>Molina Healthcare of CA - Riverside/San Bernardino</td>
<td>77.08</td>
</tr>
<tr>
<td>Gold Coast Health Plan - Ventura</td>
<td>77.07</td>
</tr>
<tr>
<td>Health Net Community Solutions - Los Angeles</td>
<td>76.76</td>
</tr>
<tr>
<td>Health Plan of San Joaquin - Stanislaus</td>
<td>76.51</td>
</tr>
<tr>
<td>Kern Family Health Care - Kern</td>
<td>75.41</td>
</tr>
<tr>
<td>CalOptima - Orange</td>
<td>75.25</td>
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<tr>
<td>Inland Empire Health Plan - Riverside/San Bernardino</td>
<td>75.14</td>
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<tr>
<td>Health Net Community Solutions - Kern</td>
<td>74.70</td>
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<tr>
<td>Care 1st Partner Plan - San Diego</td>
<td>72.11</td>
</tr>
</tbody>
</table>

2 **Minimum Performance Level**

<table>
<thead>
<tr>
<th>Plan Name</th>
<th>Rate (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>CalViva Health - Madera</td>
<td>76.68</td>
</tr>
<tr>
<td>Molina Healthcare of CA - San Diego</td>
<td>68.64</td>
</tr>
<tr>
<td>Health Net Community Solutions - San Diego</td>
<td>64.79</td>
</tr>
</tbody>
</table>

**Notes:**

1 **High Performance Level** is HEDIS 2013 national Medicaid 90th Percentile.

2 **Minimum Performance Level** is HEDIS 2013 national Medicaid 25th Percentile.

NA = A Not Applicable audit finding because the MCP’s denominator was too small (i.e., less than 30).

S = The measure is publicly reported based on audit results; however, since the MCP’s numerator was less than 11, DHCS suppresses displaying the rate to satisfy the HIPAA Privacy Rule’s de-identification standard.

Note: HEDIS 2014 rates reflect 2013 measurement year data.
Performance Results—Use of Imaging Studies for Low Back Pain

Note:
- The percentages displayed on this chart represent the Medi-Cal Weighted Average for each year displayed.
- Not all MCP counties that contributed to the previous years' Medi-Cal Weighted Averages are shown.
- Only MCP counties that reported data for HEDIS 2014 are shown and these MCP counties may not have reported data in prior years.

HEDIS 2014 rates reflect 2013 measurement year data.
Imaging for Low Back Pain
Commercial HMO
MEDICAL GROUP

Source: Integrated Healthcare Association MY 2014 Commercial HMO Data

Note: Chart distribution shows all 161 PO’s for LBP measure. Only a subset of names are displayed due to space constraints.
Imaging for Low Back Pain
Commercial HMO/PPO PLAN LEVEL

<table>
<thead>
<tr>
<th>Worse (0%)</th>
<th>OPA Commercial HMO Plan Level Data</th>
<th>Better 100%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Blue Shield of California - HMO</td>
<td>78%</td>
<td></td>
</tr>
<tr>
<td>Anthem Blue Cross - HMO</td>
<td>78%</td>
<td></td>
</tr>
<tr>
<td>Cigna HMO</td>
<td>79%</td>
<td></td>
</tr>
<tr>
<td>Aetna Health of California, Inc.</td>
<td>79%</td>
<td></td>
</tr>
<tr>
<td>Health Net of California, Inc.</td>
<td>80%</td>
<td></td>
</tr>
<tr>
<td>UnitedHealthcare of California</td>
<td>81%</td>
<td></td>
</tr>
<tr>
<td>Western Health Advantage</td>
<td>83%</td>
<td></td>
</tr>
<tr>
<td>Sharp Health Plan</td>
<td>85%</td>
<td></td>
</tr>
<tr>
<td>Kaiser Permanente Southern California</td>
<td>90%</td>
<td></td>
</tr>
<tr>
<td>Kaiser Permanente Northern California</td>
<td>90%</td>
<td></td>
</tr>
</tbody>
</table>

Score for top health plans nationwide: 83%*

|||े

Commercial HMO Plan Level Testing for Cause of Back Pain MY 2014

| (Worse) 0% | OPA Commercial PPO Plan Level Data MY 2014 | | (Better) 100% |
|------------|-------------------------------------------|--------------|
| Anthem Blue Cross PPO | 78%                                      |              |
| Blue Shield of California/Blue Shield Life PPO | 80%                                      |              |
| Health Net PPO            | 81%                                      |              |
| UnitedHealthcare Insurance CO., Inc.   | 82%                                      |              |
| Aetna PPO                  | 82%                                      |              |
| Cigna PPO                  | 83%                                      |              |

Score for top health plans nationwide: 83%*

Source: MY 2014 HMO Plan Level Data - OPA Health Care Report Card
Source: MY 2014 PPO Plan Level Data - OPA Health Care Report Card

*= Score that ranks a health plan in the top 10% of all commercial HMO health plans in the U.S.
How too many tests can cause lifelong harm

I've had 17 MRIs since the year 2000 due to some chronic pain issues, mostly in my back. That was 15 too many.

Chronic pain can be frustrating for a doctor, and my MRIs were handed out like candy. Most of them were given to me to get me out of their office to "prove" nothing was wrong with me. They're even given frequently for people who have mild back pain.

I never once thought that getting a scan would be dangerous – especially those five MRIs that had a contrast agent in them that contained a toxic heavy metal called gadolinium.

Contrast agents in MRIs have become much more popular in recent years. It is said that it can be a life-saving medicine. In my case though, I never had symptoms that warranted a scan that needed a contrast agent, and having so many of them led me to a devastating life experience.

In 2010, I was given a back MRI with one of those toxic heavy metal contrast agents that I mentioned above. And then, just a few months later, my life-changing symptoms began. They started with non-stop twitching all over and a rash. Even though I'd had a chronic all-over pain problem and back surgery in 2009, I was a high functioning person. I am a licensed massage therapist and I knew that what was going on was not normal. I saw some some excellent doctors while trying to figure out what was happening, but unfortunately gadolinium toxicity does not show up in any tests.

While I was searching for answers to what I was going through, I was given three more doses of gadolinium with six more MRIs. I also had three additional doses of another contrast agent, also with heavy metals in it. Finally, I was given a heavy metal test that is not common; it's looked at as "alternative" medicine. The results of that test, plus two urine tests, showed there was a high amount of gadolinium – of heavy metal – inside of me.

Gadolinium is not supposed to be in your system. You can only get it from an MRI. If you have it in you, you will have symptoms very similar to MS and lupus. This is what was happening to me.

It was causing debilitating problems for me and was eating away at my muscles and causing a buzzing in my brain. I have eye infections, I lost a shoe size, my bones became painful, I got high blood pressure, and I went from perimenopause to postmenopause in less than one year. I cannot be in the heat or take a hot shower. My skin is thickening and peeling.

All my MRIs were from two hospitals that had access to all my records. Looking back, I really only needed two MRIs in total – and none with contrast agent. If the two radiologists had stopped and thought for 30 seconds, "Why has she had four MRIs in 2012 alone?" and called the prescribing doctor to ask a few questions, I possibly could have avoided this.

The FDA is finally looking into this issue and has given a warning to the medical community. That has been because of the persistence of patients. Unfortunately, even with this warning, the medical community is still convinced that using these contrast agents has more life-saving capabilities than not using them. Radiologists have also not welcomed this warning, saying that the contrast agents in scans make them easier to read — and they are fearful of missing anything because of potential lawsuits.

For me though, the warning from the FDA came too late, and my advice is this: Before you take any medicine or get any procedure, stop and think. Overuse of drugs and procedures is common practice in the USA, and it needs to stop.
-rays, CT scans, and MRIs are called imaging tests because they take pictures, or images, of the inside of the body. You may think you need one of these tests to find out what is causing your back pain. But these tests usually do not help. Here’s why:

**The tests do not help you feel better faster.**
Most people with lower-back pain feel better in about a month, whether or not they have an imaging test.

People who get an imaging test for their back pain do not get better faster. And sometimes they feel worse than people who took over-the-counter pain medicine and followed simple steps, like walking, to help their pain.

Imaging tests can also lead to surgery and other treatments that you do not need. In one study, people who had an MRI were much more likely to have surgery than people who did not have an MRI. But the surgery did not help them get better any faster.

**Imaging test have risks.**
X-rays and CT scans use radiation. Radiation has harmful effects that can add up. It is best to avoid radiation when you can.
Advice from Consumer Reports

How to treat lower-back pain

Many people get over lower-back pain in a few weeks by following these self-care steps:

**Stay active.** Walking is a good way to ease lower-back pain. If you stay in bed, it can take longer to get better. If you stay in bed more than a day or two, you can get stiff, weak, and even depressed. Get up and move.

**Use heat.** Heat relaxes your muscles. Try a heating pad, electric blanket, warm bath, or shower.

**Take over-the-counter medicines.** To help relieve pain and reduce swelling, try pain relievers or drugs that reduce swelling (called anti-inflammatory drugs). Remember, generic medicines cost less than brand names, but work just as well.
- Generic acetaminophen (brand name Tylenol)
- Generic ibuprofen (brand name Advil)
- Generic naproxen (brand name Aleve)

**Sleep on your side or on your back.** Lie on your side with a pillow between your knees. Or lie on your back with one or more pillows under your knees.

**Talk to your doctor.** If your pain is very bad, ask about prescription pain medicines. If they do not help within a few days, talk with your doctor again. Ask if the pain might be caused by a serious health problem.

**Find out about other ways to treat back pain.** If you still have pain after a few weeks, you may want to ask your doctor about other treatments for lower-back pain. Treatments include:
- Physical therapy
- Chiropractic care
- Acupuncture
- Yoga
- Massage
- Cognitive-behavioral therapy
- Progressive muscle relaxation

Find out if your health insurance pays for any of these treatments.

**Surgery is a last choice.** Surgery usually does not help very much. It has risks, and it costs a lot. Think about surgery only if other treatments do not help your pain.

---

**Imaging tests are expensive.** The chart below shows the costs of imaging tests according to HealthcareBlueBook.com. Why waste money on tests when they do not help your pain? And if the tests lead to surgery, the costs can be much higher.

<table>
<thead>
<tr>
<th>Imaging Test</th>
<th>Price Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>X-rays of the lower back</td>
<td>$200 to $290</td>
</tr>
<tr>
<td>MRI of the lower back</td>
<td>$880 to $1,230</td>
</tr>
<tr>
<td>CT scan of the lower back</td>
<td>$1,080 to $1,520</td>
</tr>
</tbody>
</table>

**When are imaging tests a good idea?** In some cases you may need an imaging test right away. Talk to your doctor if you have back pain with any of the following symptoms:
- Weight loss that you cannot explain
- Fever over 102° F
- Loss of control of your bowel or bladder
- Loss of feeling or strength in your legs
- Problems with your reflexes
- A history of cancer

These symptoms can be signs of nerve damage or a serious problem such as cancer or an infection in the spine.

If you do not have any of these symptoms, we recommend waiting a few weeks. Before you have a test, try the self-care steps in the blue box.
Topic 3: Opioid Overuse
Meeting Materials
Opioid Overuse: statewide strategy to address high health care and social costs

Background: an iatrogenic epidemic

Opioid overdose deaths quadrupled in the last fifteen years; drug overdose deaths now surpass deaths from auto accidents. Neonatal abstinence syndrome tripled in the last decade, and the demand for addiction treatment has risen 9-fold. \(^1\) Recent studies estimate the US spend on this epidemic to be $18-72 billion\(^2\) per year (including $2.2 billion in drug abuse treatment and $8.2 billion in criminal justice costs.) The cost to insurers from prescription drug diversion exceeds $70 billion per year, with nearly $25 billion born by private insurers\(^3\). By comparison, the Institute for Clinical and Economic Review (ICER) estimates the annual costs of unnecessary brain and spine imaging, antibiotic use, coronary catheterizations, and carotid ultrasounds together add up to $5.6 billion per year.

In summary, the US is paying a fortune for the impact of a medical treatment that – we now know – doesn’t work for chronic pain, worsens disability, and kills with no respect to age, race, class, or educational status. Like most societal ills, the impact is far worse on the poor. In one study, the death rate for a Medicaid beneficiary was 5.7 times that of someone not in Medicaid.\(^4\)

How did we get here?

- Aggressive pharma advertising and false JAMA studies, since retracted
- Pharma influence on state medical boards
- Regulatory enforcement of “pain is the 5th vital sign”
- Well-meaning clinicians trying to do the right thing
- Direct-to-consumer advertising
- Successful lawsuits for undertreated pain
- Inadequate understanding of the long-term impacts of opioid use on neurochemistry (impact on dopamine and ability to regulate mood, exert judgment, and self-motivate), hormones (impact on testosterone and bone density), breathing (sleep apnea and respiratory depression), mood (depression and functional loss), and weight
- Welfare reform and loss of a social safety net, shifting a large population from welfare to SSI disability.

\(^2\) [http://www.pdmpexcellence.org/content/economic-costs-epidemic](http://www.pdmpexcellence.org/content/economic-costs-epidemic)
Examples of success

Good evidence demonstrates that concerted efforts can make a dramatic difference in a short amount of time.

- Partnership Health Plan is saving $1 million per month due to the “Managing Pain Safely” program, launched in 2014. Savings from the decrease in opioid prescribing exceed the total monthly spend for all cardiovascular drugs combined, including anti-hypertensives. The percentage of members on high-dose opioids dropped by 33%, and the total number of opioid prescriptions pmpm dropped 43% (as high as 70% in one county).
- Multnomah County (Portland, Oregon) dropped the total number of patients on chronic opioids by 70% and dropped the opioid overdose death rate by 40% in 3 years.
- Southern California Permanente Medical Group dropped the number of people on high-dose opioids by 91% in 3 years.
- Staten Island opioid overdose death rates dropped 29% in two years, due to concerted public health efforts.⁵
- Florida death rates dropped by 18% in two years, after a 59% rise over the previous 6 years, through coordinated law enforcement efforts.⁶
- The number of individuals identified as “doctor-shopping” (using multiple prescribers) dropped by 50% after implementation of a Kentucky law requiring providers to use the state prescription database before refilling controlled substances.

Path to success

The Overuse Workgroup, while having no authority, has tremendous potential to influence work on opioid overuse across the state. The work requires culture change, which is not achieved by a magic bullet. The work can be organized into three areas: (1) supporting safe prescribing practices, (2) spreading medication-assisted addiction treatment, and (3) increasing access to naloxone (overdose antidote). Work is beginning in the areas of policymakers, plans, providers, and consumers, and can be augmented by the focus of this group.

---

⁵ http://www.cdc.gov/mmwr/preview/mmwrhtml/mm6418a3.htm
⁶ http://www.cdc.gov/mmwr/preview/mmwrhtml/mm6326a3.htm
### Potential Pathways to Action

<table>
<thead>
<tr>
<th>Intervention Pathways</th>
</tr>
</thead>
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<tr>
<td><strong>Clinical Decision Support</strong></td>
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<tr>
<td><strong>EMR</strong></td>
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<tr>
<td><strong>Checklists</strong></td>
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<tr>
<td><strong>Toolkits</strong></td>
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<td><strong>HIE</strong></td>
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<tr>
<td><strong>Clinician Feedback</strong></td>
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<tr>
<td><strong>Comparative Performance Information (internal)</strong></td>
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<tr>
<td><strong>Measurement alignment</strong></td>
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<td><strong>QI Collaborative/ Education/ technical assistance</strong></td>
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<tr>
<td><strong>Provider-facing incentives</strong></td>
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<td><strong>P4P</strong></td>
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<td><strong>Risk-sharing</strong></td>
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<td><strong>Recognition in provider directories</strong></td>
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<td><strong>Measurement alignment</strong></td>
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<td><strong>Centers of Excellence</strong></td>
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<td><strong>Encouragement and support of buprenorphine</strong></td>
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<td><strong>Provider education, academic detailing</strong></td>
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<td><strong>Provider restrictions</strong></td>
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<td><strong>Prior authorization</strong></td>
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<td><strong>Patient review and restriction programs</strong></td>
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<td><strong>Consumer-facing incentives</strong></td>
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<td><strong>Patient cost-sharing</strong></td>
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<td><strong>Value-based ins. design</strong></td>
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<td><strong>Care management</strong></td>
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<td><strong>Benefit expansion</strong></td>
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**Consumer information**

<table>
<thead>
<tr>
<th><strong>Public provider report cards</strong></th>
<th>? unlikely to be successful; CMA concern</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Educational materials</strong></td>
<td>Consumer reports, on-line resources; access to mindfulness training (See example from Partnership Health Plan) Health plan outreach letters to patients on high-risk or high-dose meds; Santa Clara Famly Health Plan uses notice of action letters stating “This quantity of narcotics exceeds safe prescribing guidelines. Please co-prescribe naloxone injection 1 vial for overdose rescue.”</td>
</tr>
<tr>
<td><strong>Recognition in provider directories</strong></td>
<td>?</td>
</tr>
<tr>
<td><strong>Consumer advocacy groups</strong></td>
<td>Many consumer groups are mobilizing to support opioid safety for example <a href="http://feduprally.org/">http://feduprally.org/</a></td>
</tr>
</tbody>
</table>

**Public Policy**

<table>
<thead>
<tr>
<th><strong>Scope of practice issues</strong></th>
<th>Expansion of buprenorphine prescribing to advanced practice clinicians</th>
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</thead>
<tbody>
<tr>
<td><strong>Shared data</strong></td>
<td>CURES and public health aggregate data shared at county and zip code level; use to track impact (deaths, ED visits, hospitalizations, opioid prescribing data, buprenorphine providers and prescriptions)</td>
</tr>
<tr>
<td><strong>CURES 2.0</strong></td>
<td>CURES 2.0 will streamline enrollment, provide dashboards and alerts for high-risk prescribing. Consider adding educational and resource links to site (NYC example)</td>
</tr>
<tr>
<td><strong>Community coalitions</strong></td>
<td>Bring plans, clinicians, hospitals, pharmacies, medical society, public health, law enforcement, substance use treatment, schools together to work on opioid safety.</td>
</tr>
<tr>
<td><strong>State workgroup activities</strong></td>
<td>Multi-agency workgroup coordinating opioid efforts across public health, justice, health services, workers’ comp, boards of medicine, pharmacy, dentistry, etc.</td>
</tr>
<tr>
<td><strong>Expand MAT access</strong></td>
<td>Health plan or medical group incentives to obtain bupe license and accept referrals Statewide strategy to provide technical assistance and support for clinics starting medication-assisted treatment (MAT)</td>
</tr>
</tbody>
</table>

**Media**

| **Public service announcements** | Many good examples from NYC: [https://www.youtube.com/watch?v=1WsOd7RjAmo](https://www.youtube.com/watch?v=1WsOd7RjAmo) |
## Appendix: detailed examples of health plan formulary approaches

<table>
<thead>
<tr>
<th></th>
<th>Rationale</th>
<th>Comments</th>
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<tbody>
<tr>
<td>Remove methadone from the formulary</td>
<td>More than 30% of overdose deaths involve methadone&lt;sup&gt;7&lt;/sup&gt;</td>
<td>Methadone addiction treatment is a Medi-Cal carve-out in California and would not be impacted by this policy; insurance plans that carve-in addiction treatment could restrict methadone for use by licensed addiction treatment centers.</td>
</tr>
<tr>
<td>Remove Soma from the formulary</td>
<td>Metabolizes to a barbiturate with a long half-life.</td>
<td>Carisoprodol (Soma) is part of the “Holy Trinity” (opioids/benzos/Soma) and has high street value. No evidence of long-term benefit.</td>
</tr>
<tr>
<td>Quantity limits: require auth for &gt; 120 or 200 MED&lt;sup&gt;8&lt;/sup&gt;; Remove high-dose morphine (100mg and 200 mg) from formulary</td>
<td>High dose increases risk of overdose death and medical complications.</td>
<td>Requires pharmacist or medical director conversations with providers to review legitimate exceptions (hospice, palliative care) or help create alternative care plan, including how to manage tapers. One plan approved all PAs but inserted language in all notice of action letters (to members and prescribers): “dose exceeds safe prescribing guidelines; please prescribe naloxone to prevent accidental overdose.”</td>
</tr>
<tr>
<td>Require auth for escalations above high-dose threshold.</td>
<td>As above.</td>
<td>Easier to implement than requiring PA for all high-dose opioids; reasonable first step to shift provider culture.</td>
</tr>
<tr>
<td>Identify high-risk combinations (e.g. opioids and benzos; acetaminophen &gt; 4g)</td>
<td>More than 30% of opioid deaths involve use of benzodiazepines.&lt;sup&gt;10&lt;/sup&gt;</td>
<td>Since benzo tapering is difficult and potentially life-threatening, and opioid withdrawal subjectively feels life-threatening, consider outreach by phone and negotiating a tapering plan, rather than by letter, which risks patient abandonment or unsafe rapid tapers. New understanding of neurochemistry supports longer (several months) for long-term high-dose opioid use, and opioid replacement therapy (buprenorphine or methadone) for opioid use disorder. Shorter tapers or abstinence increase death and relapse rate.&lt;sup&gt;11&lt;/sup&gt;</td>
</tr>
<tr>
<td>Provide access to naloxone</td>
<td>One overdose death is prevented for every 164 naloxone prescriptions&lt;sup&gt;12&lt;/sup&gt;</td>
<td>For Medi-Cal, the drug is covered as a carve-out and is covered without authorization; the nasal atomizer is not a medical device and can't be billed; it could be purchased by the patient ($5) or the plan and distributed to providers to dispense with the prescription</td>
</tr>
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<sup>7</sup> [http://www.cdc.gov/vitalsigns/methadoneoverdoses/](http://www.cdc.gov/vitalsigns/methadoneoverdoses/)

<sup>8</sup> 2014 consensus guideline from The American Pain Society and the American Academy of Pain Medicine recommended 200mg morphine equivalents be considered high-dose and recommended for dose decrease with signs of poor function or pain control. Many plans and clinics are using 120mg. [http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4043401/](http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4043401/)


<sup>12</sup> [http://www.chcf.org/~/media/MEDIA%20LIBRARY%20Files/PDF/PDF%20N/PDF%20NaloxoneOpioidSafetyPatients.pdf](http://www.chcf.org/~/media/MEDIA%20LIBRARY%20Files/PDF/PDF%20N/PDF%20NaloxoneOpioidSafetyPatients.pdf)
CEPAC/ICER’s Action Guides for Management of Opioid Dependence

In September 2014, the New England Comparative Effectiveness Public Advisory Council (CEPAC) released a series of Action Guides for management of opioid dependence. The guides, produced by the Institute for Clinical and Economic Review (ICER), are aimed at health insurers and policymakers, physicians and practice groups, and patients and families. A summary of the ICER/CEPAC effort and the key recommendations included in the Action Guides are provided below.

Evidence from clinical effectiveness reviews is critical to judgments that patients, clinicians, and health insurers must make about treatment choices and coverage policies. Yet that evidence is often not translated in a way that is helpful to inform health care decisions.

The Action Guides are designed to help patients, policy makers, health insurers, and clinicians make use of the results from a recent evidence review and meeting results. This report formed the basis for the deliberations and votes of the New England Comparative Effectiveness Public Advisory Council (CEPAC) – an independent body composed of physicians, methodologists, and patient/public members that meets in a public, transparent forum to provide objective guidance on how information from evidence reviews can best be used by regional decision-makers to improve the quality and value of health care services. The report pulls together the best available evidence on the effectiveness and value of management strategies for the treatment of opioid dependence from the published literature, findings from interviews with expert stakeholders, new survey results benchmarking the status of treatment in New England, and public testimony.

CEPAC held its meeting on management options for opioid dependence on June 20, 2014 in Burlington, VT. During the meeting, CEPAC voted on the comparative clinical effectiveness and value of different treatment approaches, and explored how best to apply the evidence to practice and policy with a distinguished Policy Expert Roundtable of patient advocates, clinical experts, and policy leaders from across New England.

This guide is intended to provide patients, decision makers, and physicians with the best available information on treatment options, and improve access and quality of care for patients of opioid dependence. The content provided here is for informational purposes only, and it is not designed to replace professional medical advice.

About ICER and CEPAC

The Institute for Clinical and Economic Review (ICER) is an independent non-profit health care research organization dedicated to improving the interpretation and application of evidence in the health care system. The New England Comparative Effectiveness Advisory Council (CEPAC) is one of ICER’s two core programs. CEPAC is a regional body whose goal is to provide objective, independent guidance on the application of medical evidence to clinical practice and payer policy decisions across New England. Backed from a consortium of New England state health policy leaders, CEPAC holds public meetings to
consider evidence reviews of a range of topics, including clinical interventions and models for care delivery, and provides judgments regarding how the evidence can best be used across New England to improve the quality and value of health care services. ICER manages the day-to-day operations of CEPAC as one of its core programs designed to translate and implement evidence reviews to improve their usefulness for patients, clinicians, payers, and policymakers. For more information about CEPAC, please visit cepac.icer-review.org.

Action steps that should be considered to support patient and families understand opioid dependence:

1. Understand that opioid dependence is a chronic, relapsing brain disease that can be treated and managed with medical care
2. Learn about the various treatment options for opioid dependence, and ask your doctor which treatment may be right for you. Decisions about medication, counseling, and other social supportive services should be based on a consideration of your individual health care needs and goals
3. Understand your options for counseling, social support services, and peer support programs that may assist in your recovery.


Actions steps that should be considered to support physicians and practice groups in taking on more patients to expand access to care:

1. Provide more resources to develop the skills and expertise of DATA 2000 waivered physicians in order to increase their capacity and willingness to serve more patients with addiction.
2. Develop stronger peer networks to help organizations and specialties treating patients with addiction manage care more effectively.
3. Revise highly restrictive entry criteria for some medication-assisted treatment programs that add another barrier to entry for patients.
4. Screen for opioid addition in primary care settings in order to support early interventions for recovery.
5. Use the results of a patient’s initial assessment and evaluation to determine the medication selected for treatment.
6. Develop evidence-based screening tools, questionnaires, or algorithms through the collaboration of specialty societies, states, and other stakeholders to help identify the most appropriate initial treatment based on individual patients’ unique factors.
7. Base treatment plans on individual patient expectations and treatment objectives, as these will vary between patients. Involve short-term goal setting with the patient using a structured treatment protocol. Keep treatment plans flexible, as they should evolve based on a patient’s level of engagement and stage of change.
8. Develop coordinated care networks in which patients receive short-term intensive outpatient care until stabilized, and then are referred to other outpatient practices for lower levels of ongoing care and MAT in primary care settings or community-based practices.


**Action steps that health insurers and policymakers should consider for expanding access to treatment include:**

1. Change regulations that isolate methadone treatment from the rest of clinical care, and consider pilot programs allowing the extension of methadone treatment to office-based settings.
2. Relax limits on the number of patients that can be treated with buprenorphine-containing medications by qualified clinical teams in appropriate organizational settings. Broaden the scope of DATA 2000 to allow qualified nurse practitioners to prescribe buprenorphine and Suboxone®.
3. Create jail diversion programs in which non-violent offenders are assessed for addiction and referred to appropriate treatment in lieu of incarceration.
4. Expand treatment to incarcerated individuals by providing Suboxone® to individuals who will be in prison for more than a short period and making medication-assisted treatment (MAT) available to individuals who are waiting for sentencing.
5. Avoid indiscriminate use of naltrexone in individuals exiting the corrections system.
6. Develop coordinated care networks in which patients receive short-term intensive outpatient care until stabilized, and then are referred to other outpatient practices for supportive services and MAT in primary care settings or community-based practices.
7. Reconsider medical policies that require treatment plans to provide counseling in order for patients to receive MAT.
8. Institute efficient prior authorization processes for Suboxone® and Vivitrol® to achieve intended policy goals while minimizing the burden to patients, clinicians, and pharmacists.
9. Individualize medical policy for dosing and tapering to the extent possible.
10. Exempt certain patients from meeting specific coverage criteria for MAT, such as patients with long histories of successful maintenance therapy.

Prescription Painkillers: 5 surprising facts

Why you should be concerned about opioids—the most prescribed drugs in America
5 Surprising things you need to know about prescription painkillers
Why the most prescribed drugs in America should cause you pause

America is in the midst of an opioid epidemic. Some 45 people a day, more than 16,600 people a year, die from overdoses of the drugs, including methadone, morphine, and oxycodone (OxyContin) and hydrocodone combined with acetaminophen (Lortab and Vicodin). And for every death, more than 30 others are admitted to the emergency room.

Why so many? Partly because more people than ever are taking opioids. Prescriptions for the drugs have climbed 300 percent in the last decade or so. In fact, Vicodin and other hydrocodone-combination painkillers are the most commonly prescribed drugs in the U.S.

In response, the Food and Drug Administration (FDA) recently proposed tighter controls on drugs that contain hydrocodone, including popular prescription cough and pain drugs. The new rules would mean less convenience for consumers: they would need to take written prescriptions to the pharmacy, rather than having their doctor phone them in, and they could not get refills without a new prescription. But those steps should help curb intentional abuse as well as encourage physicians to monitor long-term users more closely.

Still, it’s not enough to stop people from inadvertently misusing these drugs. While opioids are very effective at relieving some types of pain, many people wind up taking them in situations where they don’t work well and are not as safe. And even when an opioid painkiller makes sense, choosing the right form and understanding how to safely take it are key to avoiding serious side effects.

“Opioids can be very safe if used as prescribed, but they are powerful medications that need to be respected,” says Seddon Savage, M.D., associate professor of anesthesiology at Geisel School of Medicine at Dartmouth and Director of the Dartmouth Center on Addiction Recovery and Education in Hanover, New Hampshire. “Taking someone else’s medication, combining them with the wrong thing, or just taking too much on a single occasion can be a fatal mistake.”

We reviewed the research and talked to the experts to identify five things you need to know if you are considering taking an opioid for pain. We’ve also included a set of tips to reduce the risk of side effects. Finally, we’ve put together a list of nondrug measures that can reduce or even eliminate your need for medication.

1. They don’t work well against long-term pain.

Opioid drugs work very well to alleviate severe short-term pain due to, say, surgery or a broken bone. They can also help with pain associated with terminal or very serious illnesses, such as cancer. However, for longer-term pain from, for example, arthritis, lower-back pain, or nerve pain, research suggests that other medications and even nondrug treatments often provide relief with less risk.

Still, an estimated 90 percent of people with chronic pain are prescribed opioids. Unfortunately, most likely don’t find much relief. For example, in a 2010 study of more than 1,000 people suffering chronic pain, mostly commonly leg and back pain, most of those taking opioids reported that they still suffered moderate-to-severe pain that interfered with their everyday activities.

Truth is, there's limited evidence that opioids help or are safe when used long term. Most of the research involves lower-risk patients who used the drugs for just a few weeks. Very few studies have compared opioids to safer options for relieving pain, such as OTC drugs or even non-drug measures.

“What concerns me is that there is no clear evidence that people who take opioids over the long term can do more or get around more easily,” says Gary Franklin, M.D., research professor of environmental and occupational health sciences at University of Washington in Seattle. “But we do know that the higher the dose of the drug and the longer you take it, the greater your risk.”
Some people do find that high doses take the edge off their pain, but the nausea, constipation, and "fuzzy headedness" that commonly result from taking strong doses of an opioid make it not worth the benefit. On the other hand, people who start on lower doses often develop a "tolerance" to the drug, so it takes progressively larger doses to get the same relief. In an unfair twist, occasionally, the drugs actually make people more sensitive to pain.

As if that’s not enough, long-term use of opioids can lower your immune system and affect sex hormones—disrupting women’s menstrual cycles, causing men to have difficulty achieving an erection, and reducing sexual desire in both sexes.

“The old perception about opioids is that they are reasonably effective and safe for chronic pain,” says Roger Chou, M.D., associate professor of medicine at Oregon Health and Science University in Portland. “But what we’ve come to realize is for many types of pain they don’t work all that well and are actually associated with significant harm.”

**What to do:** For some types of pain—in particular, nerve pain, migraines, and fibromyalgia—other prescription medications often work better than opioids. For other types of chronic pain, talk to your doctor about trying garden-variety pain relievers such as acetaminophen (Tylenol and generic), ibuprofen (Advil, Motrin IB, and generic), or naproxen (Aleve and generic) before resorting to the stronger stuff. Research suggests that people with mild-to-moderate chronic pain can also find significant relief through nondrug measures.

If you have severe, debilitating pain that hasn’t responded to other treatment, then opioids may be option. But your doctor should prescribe the lowest possible dose for the shortest possible time and monitor you regularly for side effects.

**2. Leftover pills from an old prescription could be dangerous.**

People who’ve built up a tolerance to opioids can often take higher doses without serious side effects. But when you stop taking the drug, you’re back to square one. So if you took higher dose pills in the past and now decide to pop one, say, for a pulled muscle or bad headache, you could accidentally overdose on your own prescription.

It’s also a bad idea to take someone else’s pills. Many people who die of overdoses were not taking a drug prescribed for them according to a 2012 report by the Centers for Disease Control and Prevention (CDC). “Our bodies metabolize opioids differently based on a variety of factors,” says Savage. “What constitutes a safe dose for one person could be deadly for someone else.” Generally speaking, the larger the dose, the greater the risk, but the CDC analysis found that low doses also sometimes cause emergency room admissions and deaths.

**What to do:** Never borrow someone else’s prescription pain pills and don’t hang on to leftover pills of your own (see the box for advice on how to the best way to get rid of unused pills.) If you resume taking opioids after a break, talk to your doctor about starting with a lower dose.

**3. Your nightly glass of wine should be off limits.**

Many people who take an opioid pain killer don’t give much thought to what they combine it with, especially if they’ve been taking the drugs for a long time. For example, about 12 percent of people reported consuming two or more alcoholic drinks within two hours of taking an opioid, according to a recent survey of people who regularly take the drugs for chronic pain. About one-third admitted to taking sedatives with an opioid. Most disturbingly, about 3 percent of respondents combined the painkiller with both alcohol and sedatives.

That’s a dangerous mistake. Opioids, alcohol, and medications such as sedatives all affect the central nervous system to make you fuzzy headed, with slowed and depressed breathing. Combining them renders you much more impaired than if you just had a drink or taken a medication alone and can even prove deadly. Most opioid deaths involve alcohol or other drugs, research shows.

“A high percentage of deaths from overdoses occur in patients who are also using alcohol or benzodiazepines,” says Chou. While many people assume there’s no harm in having a couple of glasses of wine or beer, Chou and our other experts advise against it. “It’s not clear that there’s a safe level to consume while you’re taking an opioid,” says Chou.

Among the most dangerous types of drugs to combine with an opioid are benzodiazepines, which are used as anticonvulsants, anti-anxiety medications, muscle relaxants, and sedatives—for example, alprazolam (Xanax and generic), clonazepam (Klonopin and generic), diazepam (Valium and generic), and lorazepam (Ativan and generic).
What to do: As long as you are taking prescription painkillers, consider yourself a teetotaler. And before taking an opioid, ask your doctor and pharmacist if it could interact with any other prescription or OTC drugs you take.

4. Extended-release versions are not as safe.

Doctors can now prescribe extended-release or long-acting versions of several opioids, including hydromorphone (Exalgo), oxycodone (OxyContin, generic), morphine (Avinza and generic), or the newly approved hydrocodone (Zohydro ER). These stay in the body longer and are typically stronger than short-acting opioids. The drugs do allow patients to take fewer pills and helps prevent breakthrough pain because of a missed dose. Many doctors also believe that long-acting drugs are less likely to cause a drug “high” and, therefore, are less likely to lead to addiction.

But clinical trials suggest that short-acting versions work just as well, even for chronic pain. And there’s no good evidence that long-acting drugs are less addictive. Moreover, long-acting versions are more likely to cause potentially fatal overdoses, even at recommended doses.

So the FDA recently required new labeling indicating that the drugs should be reserved for patients needing strong, round-the-clock help such as people battling pain from cancer or a terminal illness; for other patients, safer, less potentially addictive options should be considered first.

What to do: If you need an opioid, short-acting versions are typically your best bet. Stronger, long-acting opioids may be overkill and the convenience is not worth the increased risk. The long-acting versions are far more likely to be stolen, misused, and abused, so if your doctor does wind up prescribing them for you, he or she may take special precautions to monitor your use of the drugs, such as pill counts and urine tests.

5. Opioids can be addicted, even when used legitimately to combat pain.

Some people become dependent on prescription pain pills and have trouble stopping them even if the drugs are hurting them physically or mentally. They often ratchet up their dose, taking more than the doctor prescribes. Over time, obtaining and taking the drugs may grow to dominate their lives.

Because traditionally painkiller addiction has affected fewer women than men, many doctors don’t consider women as vulnerable. But women may actually become dependent on prescription pain killers more quickly than men and are more likely to “doctor shop”—that is, get prescriptions from multiple providers.

Many doctors might also mistakenly think that people who are using the drug to treat pain—and not recreationally to induce a euphoric high—cannot become addicted to them, an idea that was bolstered by a few short, poor-quality studies. But in 2010, a longer-term study that used standardized criteria to assess dependence concluded that even those seeking pain relief risk addiction. Researchers from leading research institutions—the Geisinger Health System in Danville, Pennsylvania; Johns Hopkins Bloomberg School of Public Health in Baltimore; the Temple University School of Medicine in Philadelphia and the Mount Sinai School of Medicine—found that of about 700 patients who consistently took opioids for a year or longer, more than one-quarter were dependent on the drugs. Factors that increase the risk of dependence include being younger, in poor health, or in severe pain, according to the study authors. In addition, the study supports other research showing that several mental-health factors increase the risk of addiction, including depression, anxiety, other psychiatric illnesses, a history of substance abuse (including alcoholism), and being a current or former smoker.

What to do: “Before you consider taking opioids for long-term pain, you should to have a frank discussion with your doctor about your medical history,” says Franklin. “Having risk factors for addiction doesn’t mean that you can never take an opioid, but you and your doctor need to be especially cautious.” You may want to first try alternatives, including nondrug measures.

In a recent survey of physicians, most rated their knowledge about treatment of opioid dependence as only moderate. So if you are concerned that you may have become dependent, ask for a referral to a pain specialist who can help wean you off the drug as well as help you find other ways to help manage your pain.
Guide for safe use of opioid drugs

♦ Read the label and take the drug exactly as directed. Never take more than directed; don’t take it with alcohol; don’t combine it with any other drug without your doctor’s OK.

♦ Make sure your doctor knows if you have sleep apnea. (If you snore loudly, you should be checked for the condition.) Opioids can make it worse or even fatal.

♦ If you develop a cold, an asthma flare-up, bronchitis, or any other respiratory problem that makes breathing difficult while taking an opioid, let your doctor know as soon as possible. You may need a lower dose until you recover.

♦ Don’t drive or do anything where it’s important that you be fully alert until you know how an opioid will affect you. That’s especially important when you first start taking an opioid or whenever you change the type or dosage advises Savage. Drivers who had been prescribed an opioid drug were significantly more likely to wind up needing to be treated in the emergency room after an accident according to a recent Canadian study.

♦ Put opioids in a locked drawer or cabinet to prevent children from taking them or others from using them for recreational purposes. “People often think no one I know would take my medication, but you just cannot predict who might be looking for the drugs. It could be anyone—your teen’s friends, workers, a real estate agent,” says Savage. “Lock them up. Don’t just hide them in your sock drawer.”

♦ If you are using opioids for chronic pain, talk to your doctor about how you will be monitored. “You doctor should assess you at regular visits. If pain and function do not improve at least 30 percent after starting the drugs, then they probably are not working well enough to justify the risks,” says Franklin. Also expect your doctor to do urine tests and take other steps to make sure that you are taking the drugs as prescribed.

♦ Discard unused pills. You can give them back to your pharmacy if they participate in a take-back program. If not, the FDA recommends that you flush excess medication down the toilet. You can learn more about drug disposal at http://www.fda.gov/forconsumers/consumerupdates/ucm101653.htm.

Nondrug ways to manage pain

Studies show that nondrug treatments, including exercise, lifestyle adjustments, behavioral therapy, acupuncture, and massage—can significantly reduce pain and the ability to function. So much so that some people with mild and even moderate chronic pain manage well without taking any medications regularly.

Here are some options that can help, depending on your kind of pain.

- **Back pain.** Staying physically active often helps. Acupuncture, massage, physical therapy, and yoga, might work, too.

- **Headaches.** Cutting back on alcohol and avoiding foods that trigger your headaches might help, as can controlling stress with meditation, relaxation therapy, or other means. Exercise can also help.

- **Osteoarthritis.** Low-impact exercise, such as walking, biking, and yoga, can ease pain and improve function. But it’s best to avoid high-impact activities, such as running or tennis, that might aggravate your symptoms.

- **Fibromyalgia.** Regular exercise can help reduce pain and fatigue. Other options to consider include cognitive behavioral therapy—a type of psycho-therapy—as well as meditation, and tai chi, which is a form of exercise involving slow, gentle movements combined with deep breathing.