Exhibit 19

To: Feltz, Margaret[Margaret.Feltz@pharma.com]
Cc: Lowne, Jon[Jon.Lowne@pharma.com]; Barton, Maria[Maria.Barton@pharma.com]; Kelly, Marv[Marv.Kelly@pharma.com]; Stuart D. Baker[stuart.baker@nortonrosefulbright.com]
From: Landau, Dr. Craig (US)
Sent: Fri 9/1/2017 5:24:39 PM
Subject: Re: Meeting to discuss opioid promotion

I believe we have one or more meetings on the books to discuss this as a high priority item. I believe you said JJ had scheduled this after our discussion to do the same. If in the wake of his planned departure the meeting has fallen off the calendar, please reschedule as soon as possible.

Craig

Craig Landau, MD
President & CEO
Purdue Pharma LP

203-912-5576 cell
203-588-7252 office

Sent from my iPhone

> On Sep 1, 2017, at 5:14 PM, Feltz, Margaret <Margaret.Feltz@pharma.com> wrote:
>
> FYI
>
>
>
> Margaret K. Feltz | Vice President, Ethics & Compliance
> Purdue Pharma L.P. | One Stamford Forum | 201 Tresser Blvd. | Stamford, CT 06901
> Tel: 203-588-8754 | Fax: 203-588-6269 | Mobile: 203-912-8947 | Email: margaret.feltz@pharma.com
> Purdue Ethics & Compliance Hotline: 1-877-PURDUE1 (1-877-787-3831)
>
>
>
> On 9/1/17, 5:14 PM, "Feltz, Margaret" <Margaret.Feltz@pharma.com> wrote:
>
> JJ,
>
> Thanks for your follow up message. As you are aware, Marv and I have spent considerable time discussing the recertification process and have a plan going forward. I will loop Jon in to ensure he is comfortable with that plan.
>
> Thanks
> Maggie
>
> -----Original Message-----
> From: Charhon, JJ
> Sent: Friday, September 01, 2017 11:08 AM
> To: Feltz, Margaret <Margaret.Feltz@pharma.com>
> Cc: Lowne, Jon <Jon.Lowne@pharma.com>
> Subject: RE: Meeting to discuss opioid promotion
>
> Maggie,
>
> Apologies for the delayed response. I wanted to connect with Marv and Bob and align on a point of

view inside commercial. I am concerned about the delay in remediating these sales force training gaps given the recommended next steps Craig. As you and I have discussed a number of times over the last few weeks, the differences in approach between the detailing of opioids and Symproic is in my mind a significant source of additional risk from a compliance perspective. We can always change our strategy at a later point in time, but it is in my view imperative that the sales force gets re-certified on the Opioid front against the existing standard. I also raised these points with Marv once again last week and encouraged him to align with you so we can put something in place ideally before the Symproic launch date.
>
> I am copying Jon given his new set of responsibilities as this is one is the most time-sensitive open matter that I believe needs to be brought to closure quickly.
>
> Happy to discuss more at your convenience.
>
> Regards,
>
> JJ
>
> -----Original Message-----
> From: Feltz, Margaret
> Sent: Tuesday, August 22, 2017 1:00 PM
> To: Charhon, JJ <JJ.Charhon@pharma.com>
> Subject: Meeting to discuss opioid promotion
>
> JJ,
>
> Sorry I missed your earlier call. Following the EC meeting the week before last, I had a brief conversation with Craig about assessments and the plan forward with regard to opioid messaging by the field. I think he feels that we need to align on strategy and expectations before completing any additional field assessments or certifications.
>
> To that end he suggested a meeting of substantially the same group as you are trying to pull together on 8/31. As Marv is OOO then, I was looking to schedule a meeting on 9/8 from 2:00-5:00. I think Marv is a key player to have participate in person. Additionally, as mentioned in my prior email, I think it makes sense for Cassandra and Rich to join us. Finally, it seems Helmut Osorio would benefit from and contribute to the discussion as the leader for opioid brands.
>
> If it makes sense to you, please update the planner to 9/8 and add those additional attendees.
>
> I am running to [redacted] this afternoon but we can connect later today or tomorrow if needed.
>
> Thanks
> Maggie
>
> Maggie Feltz
> VP, Ethics & Compliance
> M: 203-912-8947
>
>
>
>

Exhibit 20

To: anthony.monaco@tufts.edu[anthony.monaco@tufts.edu]
Cc: jo.wellins@tufts.edu[jo.wellins@tufts.edu]; Landau, Dr. Craig (US)[Dr.Craig.Landau@pharma.com]
From: Shah, Tejash
Sent: Mon 11/13/2017 5:06:52 PM
Subject: Opioid Crisis & Purdue Pharma
171113 Letter for Pres. Monaco.pdf

Dear President Monaco,

Please accept the attached letter regarding the opioid crisis and Purdue Pharma on behalf of Dr. Craig Landau, CEO. Due to unforeseen travel, Craig was unable to send the message himself, but asked that I convey this to you today so that you would have it as soon as possible.

We hope this letter provides useful context on this subject and look forward to the opportunity to discuss this with you in person soon.

All the best,

Tejash Shah, M.D., on behalf of Dr. Craig Landau, CEO

* *

Tejash Shah, M.D.

Chief of Staff to CEO - Purdue Pharma, L.P.

201 Tresser Boulevard | Stamford, CT 06901

203.588.7009 (o) | 475.232.6049 (c)

PURDUE

Purdue Pharma L.P.

One Stamford Forum
Stamford, CT 06901-3431
www.purduepharma.com

Anthony P. Monaco
President, Tufts University
Office of the President
Ballou Hall
Tufts University
Medford, MA 02155

November 13, 2017

Dear President Monaco,

I am writing to provide you with additional information and important context regarding the recent news coverage of the Sackler family and Purdue Pharma, the pharmaceutical company founded by the late Drs. Mortimer and Raymond Sackler.

As a physician and the recently appointed CEO of Purdue Pharma, which has historically specialized in opioid pain medications, I recognize that I am responsible for ensuring this company plays an impactful role in addressing our national crisis of opioid-related addiction.

At the same time, we are a company committed to patients and physicians, and we're proud of our efforts to develop pain treatments that address the legitimate medical needs of patients suffering from chronic pain.

Unfortunately, 16 years ago, certain Purdue employees understated the risks of opioid use, and we paid a serious price, especially in terms of public trust. Since that time, however, my Purdue colleagues and I have worked tirelessly to ensure that those who prescribe our medications fully understand their risks, even when used appropriately. Furthermore, we've made combatting opioid abuse and addiction a central part of our mission. Allow me to elaborate on this point, as I understand you may receive some questions about what has been reported in the media.

Purdue was founded by physicians committed to medical science and its use for improving and saving lives. I was fortunate to know and learn from one of its founders, Dr. Raymond Sackler, for nearly 20 years. During that time, his dedication to scientific discovery, medical innovation, and public health helped propel Purdue Pharma to undertake breakthrough research in developing pain medications with abuse-deterrent properties and make multi-year investments in efforts to discover non-opioid analgesics.

Beyond our core scientific mission, we've also partnered with policymakers and law enforcement across the nation, listening to their concerns and responding to their requests for support. Whether by providing seed funding for Prescription Drug Monitoring Programs, purchasing naloxone kits for law enforcement officers to treat overdose victims, or more

recently, partnering with NIH to expedite the development of new pain medications with little or no abuse liability, Purdue has sought to play a constructive role in addressing the opioid crisis.

As a business leader, I am proud to say that Purdue has taken unique steps among our industry peers to encourage physicians to prescribe fewer opioids, including OxyContin. We exist to serve legitimate patients, who've received a prescription from a well-informed physician. That is why shortly after their release, we integrated the CDC's opioid prescribing guideline and recommendations into our discussions with prescribers. We don't want a single prescription written for one of our products except for the right reason, for the right patient, and in the right manner.

What we do desire, however, is that our efforts not be mischaracterized, as they were in a recent *New Yorker* magazine article that made inaccurate claims, for example, about the pediatric studies Purdue conducted for OxyContin. As you may know, federal law (Pediatric Research Equity Act) requires that pharmaceutical companies conduct pediatric studies to ensure prescribers have adequate information to treat young patient populations in a safe and effective manner. As such, Purdue Pharma was mandated by the FDA to conduct such studies for OxyContin, but, contrary to what was reported we never sought permission to market this medication – or any opioid – to or for use in children. In fact, we publicly pledged that even if we were granted such permission by the FDA, we would not promote this product for pediatric use out of concerns about the opioid crisis.

There have also been surprising omissions of key information about Purdue and its products in recent media stories in the New Yorker and other publications. Among the most egregious is how broadly and rigorously companies like ours and products like OxyContin are regulated and studied. Questions have been raised about the 12-hour duration of OxyContin, yet scant attention has been paid to the fact that scientific evidence, including more than a dozen controlled clinical studies, supports the FDA's approval of 12-hour dosing for OxyContin. Further, the OxyContin label has been updated more than 30 times and at no point has the FDA requested a change to the dosing frequency.

Another critical piece of information often missing from media coverage is that the addictive potential of prescription opioids has been widely known, publicly disseminated, and clearly noted on product labels since these drugs were approved. For example, the initial FDA-approved package insert from 1996 warned that OxyContin has a risk of abuse, dependence, and addiction. Importantly, those warnings and our practices have evolved over time, reflecting the latest medical science and our own beliefs about the importance of raising awareness about the risks of opioids. Additionally, OxyContin has always been categorized as a Schedule II controlled substance, which, as doctors and pharmacists know, is defined by the DEA having "a high abuse potential with severe psychological or physical dependence liability, but have accepted medical use in the U.S."

Overall, recent media coverage has relied disproportionately on the claims and quotes of attorneys financially invested in litigation against Purdue and other pharmaceutical companies. The result has been the near-complete absence of information about the measurably beneficial role that the legitimate use of pain medications has within our healthcare system. For decades, opioid medications have been studied, regulated, prescribed, and used as directed, resulting in pain relief for millions of Americans. No understanding of public health nor success in addressing the opioid epidemic can be achieved without this critical context.

In closing, I'd offer that even though our products represent less than two percent of our nation's opioid prescriptions, we at Purdue Pharma believe it as our responsibility to lead our industry in helping address our nation's opioid epidemic. This reflects our company's core values, instilled by Drs. Mortimer and Raymond Sackler, to use science to improve public health. This was their lifelong goal, reflected in their professional, personal, and philanthropic endeavors, including their support for Tufts, which began many years before the introduction of Purdue's first opioid analgesic product.

Thank you for this opportunity to provide some necessary perspective on current and past events. I would gladly make myself available at your convenience, should you wish to speak.

Sincerely,

Craig Landau, M.D.

Exhibit 21

Memorandum

7 May 2000

TO: Paul D. Goldenheim, MD; Michael Friedman; Robert F. Kaiko, PhD; Robert F. Reder, MD

FR: J. David Haddox, DDS, MD

RE: Site Visit of Masters of Science in Pain Research, Education and Policy, Tufts University School of Medicine, 4/26/00 through 4/27/00

Objectives of site visit:

1. To gain familiarity with the faculty, administration and participants in the MSPREP Program sponsored by PPLP.

2. To explore opportunities for further collaboration within the MSPREP Program.

3. To address the issue of PPLP logo on marketing materials that was raised by PPLP Board of Directors.

4. To stimulate the MSPREP to finalize its marketing plan and submit to PPLP for review and informational purposes.

5. To begin the process of outlining a list of essentials for future/similar programs that may be supported by PPLP.

6. To explore ways in which PPLP can contribute academically to the curriculum of the MSPREP Program.

Details of Meetings

After my arrival, I had a late lunch with Kathyrn E. Lasch, PhD and Annmarie Clattenburg, MPH. Dr. Lasch is co-director of the MSPREP program with Dr. Daniel B. Carr. Ms. Clattenburg is the Program Manager. This served as my introduction/orientation to the program.

My delivering a lecture for the MSPREP about the Interface of Pain and Addiction at 4:00 PM on April 26th was the first formal activity of this site visit. Despite the time of day, there were about 30 people in attendance, including most of the candidates, many of the faculty from the Program, as well as the faculty from related disciplines. Of particular interest to me, demonstrating the local of support MSPREP has from the institution, Mary Lee, MD, Dean for Education Affairs at TUSM, and Peggy Newell, JD, MBA, Associate Provost for Research at Tufts both attended. In addition, Drs. Carr and Lasch were in attendance. This lecture generated a great deal of discussion and interaction. The final questions and answers were not concluded until

approximately 5:20 PM. This gives some indication of the degree of interest on the part of the faculty and the candidates in relevant topics.

From 5:30 PM until 6:15 PM, I participated in a MSPREP class entitled "Principles of Change and Education Applied to Pain Management". This was taught by Judy Spross, PhD, RN, who is a Senior Scientist at the Education Development Center and an Adjunct Associate professor of TUSM. Dr. Spross is well known for developing the ONS Cancer Pain Treatment Guidelines. Four of the students were available for this class, as two were out-of-town. They discussed the projects that they had been working on through this semester: exploration of physician attitudes; developing a curriculum for physical therapists regarding pain management principles; formulating a useful guide to the tens of thousands of Internet sites which claim to offer information on headache; and developing a pharmacy education module.

I then had a pleasant dinner with Dr. Carr, Dr. Lasch, Dr. Lee, Ms. Newell and Dr. Ron Kulich, a well-known psychologist who is the Associate Director of the Pain Management Program at NEMC. During this dinner we discussed various aspects of the program, although, it was largely a social event.

The next day consisted of a series of individual meetings, which were attended by Dr. Lasch (in most of the cases), since the meetings were in various locations on the Tufts campus.

The first meeting was with Joseph Lau, MD, Director of the new Cochrane Center and the Center for Clinical Evidence Synthesis. Dr. Lau is world-renowned for his systematic reviews of the medical literature, especially for having published a well-known meta-analysis of the use of thrombolytic therapy following acute myocardial infarction. The Cochrane Center, in collaboration with MSPREP, offers workshops for physicians and other healthcare professionals on how to perform systematic reviews of the literature. I think that these workshops would be useful to some PPLP individuals, to be selected at some point in the future.

I then met with the Dean for International Affairs of TUSM, Adel Abu-Mostafa, PhD. As it turns out, despite its relatively small size, TUSM has a very active international presence, having sent over 100 faculty to many countries in the Middle East to help with medical training programs. Dr. Abu-Mostafa is particularly interested in interactive courses, with international enrollment via the Internet or satellite. He indicated that Tufts is finishing a 15-year contract award by United States Government to assist Saudi-Arabia in developing medical expertise. He was also quite understandably proud of pointing out that although Tufts is a relatively small school (a total student body of 6,000), its medical school is rated 22nd in US News and Report and it is the 3rd most quoted medical university in research articles. He was very interested in taking brochures to market the MSPREP program on his upcoming trip to Dubai, Saudi-Arabia and possibly India. Presently, there are two international graduates in the six participants of the MSPREP Program.

I was fortunate to have an unscheduled, but very interesting, one-on-one meeting with Lou Lasagna, MD, who is the Co-director of the Center for Drug Development at

Tufts. Dr. Lasagna shared some of his observations about the education of healthcare professionals regarding pain.

I then met with Carolyn Locke, MS, the Associate Dean of the Sackler School and the Director of the Office of Graduate Degree Programs, along with Rick Barber, who is the Registrar for the Special Health Programs at TUSM. TUSM offers a combined MD/MPH program, a program in health communications, a program in health law, and a Masters in public health, in addition to the MSPREP Program. Dean Locke indicated that the goal of the enrollment of the MSPREP Program would be a maximum of 12-15 to allow optimal interaction. We also discussed the MSPREP marketing plan since, apparently, this falls under her purview. Mr. Barber went over a sketchy plan that he had to-date. This plan included marketing the program at several graduate education affairs around the country, where he has had very good interest. He indicated that there are six applicants for the next session that have either complicated the application or are in the process of completing it and that he has had inquiries from various other interested individuals. It is useful to note that the candidates in the masters program thus far are all working during the day and are taking the masters program in the evening, another testament to the dedication that these students demonstrate. I left with the assurance that Ms. Locke would be getting a formalized marketing plan to me for review and comment. Of course, this will be shared through appropriate individuals at PPLP.

Next, I had a meeting with Dean John Harrington, a former nephrologist, as well as Ken Blaisdell, PhD, the Senior Director of Development in Alumni Relations for TUSM. This was a very pleasant one-half hour meeting in which I raised some of the concerns that Mark Alfonso had asked me to pursue. Mark has several individuals that he would like to expose to clinical preceptorships. I indicated to Dr. Blaisdell that one way in which the program could function better from the PPLP perspective was to have a designated contact person, probably other than Dr. Carr due to his schedule, to coordinate requests for preceptorships of PPLP employees, even if these included areas other than pain. For instance, Mark's email to me of 3/28/00 indicated that he would like exposure for the next group of preceptors to oncology nurses, pharmacy directors, and pain specialists. Of course, it is anticipated as the portfolio expands, we will be requesting exposure to neurologists, endocrinologists and oncologists. Dr. Blaisdell indicated that he would work on this and get back to me with a plan. I also brought up the issue of the problems with the logo with Dean Harrington and Dr. Blaisdell, as well as with Dean Locke in the previous meeting. They assured me that on future marketing material the Purdue logo would have a reasonable prominence and would not be regulated to "fine print". I suggested for that the interim stock of existing brochures, we provide labels with our logo, much like we have put on other brochures, policy statements, etc. which we have distributed from other organizations. This would provide a temporary fix to the problem. We also need to have individuals in our graphics arts department contact with Dean Locke to facilitate having our logo printed in the next lot of brochures that will be produced.

Dean Harrington also suggested Bay State Medical Center, which is an affiliate of Tufts, for preceptor sites, indicating that it had a much larger physical medical center than Tufts and, in fact, was the largest medical center in the state. He also pointed out

that it was closer to Purdue's headquarters and, therefore, might be more desirable for preceptorships. He offered this merely as a suggestion with no pressure to direct preceptors to either site.

I then had a very pleasant meeting with Jack Erban, MD, Chief of Hemotology and Oncology at NEMC and Mary Beth Singer, RN, the Nurse Practitioner Coordinator in Hematology and Oncology at NEMC. They are developing a cancer center and the function of this meeting was primarily to advise them in terms of how to better integrate palliative care services into their cancer center. I related, in some detail, my experiences with the development palliative care service at the Medical College of Wisconsin. I also discussed the Wisconsin Cancer Pain Initiative, with which I was affiliated, as well as the cancer pain role model course in which I also participated at MCW. I gave them several references, involving both literature and individuals. This meeting actually lasted closer to an hour instead of the original 30 minutes that it was scheduled. I also discussed ways in which they could better coordinate their activities with MSPREP to raise consciousness of better pain control throughout NEMC. They left this meeting seemingly quite excited about integrating palliative care into their cancer center activities.

I then had a short lunch in the Pain Clinic in which I met with several individuals including Harriet Wittink, MS, PT, OCS, PhD, the physical therapist that works at the program who was instrumental in developing TOPS. This is a chronic pain specific metric that has been developed to assay a number of functional domains which are thought to be important in assessing outcome of chronic pain treatment on an ongoing basis. Current metrics are seriously lacking in this regard, as has been noted internally by Drs. Wright, Reder and Richards. Dr. Carr is reviewing some information that Dr. Richards has sent regarding pain metrics in an effort to develop a suitable metric that we can employ for studies of analgesics that go beyond an acute observation. I also met with Loralie Brennen, RN, MS, who is the clinical research coordinator for the Department of Anesthesiology and is recruiting subjects for a project under the auspices of Drs. Wright and Breder. I later toured to pulmonary function lab where the project is being carried out. We had a discussion of the protocol, aspects of which have been communicated by email to Dr. Wright.

The next meeting was with David Damassa, PhD, the Dean for Information Technology at TUSM. We discussed the concept of distance learning and what efforts Tufts was taking to become a leader in that area. I took a tour of their distance learning classroom, which is very nicely equipped for video conferencing, either by Internet or on a special research university subdivision of the Internet. We discussed in some detail, a number of initiatives including the inaugural video conference during the week of May 1st between the Sidney, Australia Masters program overseen by Prof. Michael Cousins, and the Tufts masters program. There were some interesting technical points Dean Damassa brought up which may be of use in designing our headquarters building. Specifically, he and his colleagues had investigated a number of room-wide microphones for video conferencing. He recommended Tandberg as the company that clearly is the leader in microphones that will pick up sounds for an entire room as well as offer echo suppression for telephonic links and video conferencing. He also agreed to advise the American Academy of Pain Medicine on the pain course being developed

for distribution to medical schools and state medical examining boards, which will be sponsored by PPLP.

The last meeting of that day was with Ruth Glotzer, MEd, Director of CME at TUSM. We discussed a number of the CME initiatives. However, the bulk of this visit was spent obtaining an agreement from her to have TUSM sponsor our focused educational programs in response to situation in Maine, provided that we use a Tufts faculty as the titular course director (Dr. Carr has already agreed to this) and have at least one Tufts faculty on the ground as a moderator. She believes that Tufts will be able to offer continuing education credit for physicians, nurses and pharmacists. This would, of course, greatly enhance the likelihood of attendance, which is one of the obvious goals of this educational effort, since we will not have much impact unless we have a fairly broad exposure to the principles that we wish to convey during these programs. As it turns out, the East Maine Medical Center in Bangor, Maine is a Tufts-affiliated campus and there is a family practice residency run there by Tufts. I was given a contact there to help identify physicians for the educational program from Maine who are competent to speak on pain management principles and addiction assessment.

The evening concluded with me attending a class for the MSPREP from 5:00 PM until 8:00 PM. Dr. Carr gave a very nice review of pain in HIV-related disease, Dr. Lasagna gave an hour lecture on analgesic trial design and the importance of the placebo effect, and Dr. Lau gave an excellent one-hour lecture on principles of Evidence Based Medicine.

Throughout the course of the visit, I spent a great deal of time with Dr. Lasch. She has asked if I would Co-direct the course on Law, Regulation and Policy for this Fall's semester. I indicated that I could help develop the curriculum for the course with her, provide a series of lectures and contact some other speakers. She and Dr. Carr both felt that this would be a very useful addition to the program. I expect a formal confirmation of this in the near future.

Summary.

It is clear from this visit that the MSPREP program is an innovative, responsive, needed program to continue fostering and institutionalizing change in the way institutions and individuals deal with issues of proper pain care and pain-related education. It enjoys a broad base of support in the institution.

The individuals with whom I met were responsive to the objectives of my visit. I expect some of the more simple ones to be resolved shortly.

It is my intent, as PPLP's liaison to this program, to visit the program quarterly to ensure that quality is maintained and that the focus is appropriately broad, as well as to continue exploring other potential collaborations and extensions of this program's activities.

Exhibit 22

MASSACHUSETTS GENERAL HOSPITAL

HARVARD MEDICAL SCHOOL

MGH PAIN CENTER
Department of Anesthesia and Critical Care
15 Parkman Street, WACC - Suite 333
Boston, Massachusetts 02114-3117
Tel: 617.726.8810. Fax: 617.724.2719

Martin A. Acquadro, MD, DMD, FACP, FACPM
Assistant Professor of Anesthesia
Diplomate, American Board of Anesthesiology
Diplomate, American Board of Internal Medicine
Diplomate, American Board of Pain Medicine
Certificate in Pain Management, ABA

May 16, 2001

Dr. Paul Goldenheim
Executive Vice President, Worldwide Research and Development
Purdue Pharma, L.P.
One Stamford Forum
Stamford, Connecticut 06901-3431

Dear Dr. Goldenheim:

On behalf of the Massachusetts General Hospital, it is with pleasure that I write to share an exciting opportunity for collaboration with the MGH Pain Center. We are grateful for Purdue Pharma's ongoing support of our world-class program and invite you to collaborate with us as we expand and improve our work in the coming months. Specifically, I ask that Purdue Pharma name the new MGH Pain Center for a gift of $3 million.

Purdue Pharma's commitment to providing care for people with pain, and your demonstrated interest in promoting the work of the MGH make this an unparalleled chance for two world leaders in pain management to form a strategic alliance. I have taken the liberty of sending this information to Dr. Richard Sackler as well.

Organizational Background

As background, the Massachusetts General Hospital, established in 1811, was the first and is still the largest teaching hospital affiliated with the Harvard Medical School. The mission of the hospital remains unchanged since its inception – to provide the highest quality care to individuals and the community, regardless of their ability to pay; to advance care through excellence in research; and to educate future academic and practice leaders of the health care professions. The MGH is the largest hospital in New England with nearly 1,000 inpatient beds, delivering sophisticated diagnostic and therapeutic care in the medical and surgical specialties and subspecialties. Additionally, *US News and World Report* consistently ranks the MGH among the top three hospitals in the country.

Pain Management is a relatively new field in medicine, and has led to tremendous strides in the ability to alleviate much of the suffering that patients were once forced to live with. Established in 1982, the Pain Center – an MGH Center of Excellence – draws from anesthesiology, neurology and psychiatry and offers an interdisciplinary approach to pain management that is tailored to individual patient needs. Under the leadership of several world-renowned physicians, the Center provides around the clock inpatient and outpatient treatment for acute and chronic pain. One of the important strengths of the service is the commitment to hospital-wide collaboration. Caregivers in the Center work closely with many subspecialties, including Cancer Services, Palliative Care, Othaepedics, and Surgery.

Since its creation, the MGH Pain Center has experienced unprecedented demand for services – over that period of time our physicians have increased in number from three to twelve. The patient base has also increased multifold – in fact, we expect to double services over the next five years. As a result, space and staffing needs have dramatically increased as well. The space currently occupied by the Center is grossly inadequate (just over 1,000 square feet). Our patients are currently shuffled between cramped offices located in different areas on the hospital campus, resulting in compromised patient privacy and comfort.

How Purdue Pharma Can Help

For these reasons, the most pressing need of the Pain Center is increased space. We are currently planning to relocate the MGH Pain Center in a new state-of-the-art outpatient facility that will soon be built at the heart of the MGH campus. This multidisciplinary Pain Center will revolutionize the delivery of care to patients in a comfortable, well-equipped environment. With 5,500 square-feet of space, the new Center will include, among other things, four procedure rooms, ten examination rooms, observatory/recovery rooms, a physical therapy facility and a patient waiting area. The centralized location of the Center will also be critical to fostering collaboration with peers in other disciplines – further improving patient care.

For the past several years, Purdue Pharma has generously underwritten our weekly Cancer Pain Center Interdisciplinary Conference. These in-depth lectures enable caregivers from across the spectrum to come together and discuss critical topics in pain management. They have proven to be invaluable in establishing the MGH as an acknowledged leader -- advancing treatment and, in many cases, defining it for the field. Two Purdue Pharma representatives, Karolyn Sokolosky and Amy Prasol, have been instrumental partners in developing this program.

I now propose that we build upon this alliance by creating the Purdue Pharma Pain Center at the MGH. A gift of $3 million from Purdue Pharma would name the Center, putting an indelible mark on the face of pain management in one of the leading medical institutions in the country. In addition, we envision tremendous potential for corporate visibility – with creative naming opportunities ranging from logo placement on letterhead and other printed materials, to highly visible signage throughout the Center.

I would be delighted to meet with you to further define this program with you and will call you shortly to try and arrange a meeting. In the meantime, I can be reached at 617-726-8810. I look forward to discussing this opportunity for a mutually beneficial collaboration.

Sincerely,

Martin Acquadro, M.D.
Director of Cancer Pain Service

cc: Jane C. Ballantyne , MD, Director, MGH Pain Center

Massachusetts General Hospital
Pain Center Leadership

Jane Ballantyne, M.D.
Director, MGH Pain Center

Dr. Ballantyne graduated from the Royal Free Hospital in 1984. She continued her training in Anesthesia and Pain in England. In 1986, Dr. Ballantyne came to Massachusetts General Hospital to continue her clinical work and research in Pain Management. Her major research interests include Outcomes Measurement, Meta-analysis, Pharmacoeconomics, and Clinical Trials of Postoperative Pain Therapies. She has won awards for her research efforts and for her accomplishments as a medical writer. Dr. Ballantyne has been running the Acute Pain Service since 1997 and became the Director of the MGH Pain Center in 1999.

Martin Acquadro, M.D, D.M.D.
Director, Cancer Pain Service

Dr. Acquadro received his B.A. from Boston University, after which he received both his D.M.D. in 1980 and his M.D. in 1983 from Boston University as well. He trained in Internal Medicine at the Carney Hospital from 1983 to 1985. He then completed a residency in Internal Medicine at the Carney Hospital, and an Anesthesia Residency and a Pain Management Fellowship at the Massachusetts General Hospital. He ran a busy Pain Clinic and also practiced Anesthesia at the Massachusetts Eye and Ear Infirmary for ten years before joining the MGH Pain Center in October of 1999. His many interests include applications of Botulinum Toxin, cancer pain, and head and neck pain. Dr. Acquadro is the Director of the Cancer Pain Service at the MGH Pain Center.

Exhibit 23

To: Miller, Lisa Dr.[Dr.Lisa.Miller@pharma.com]; JMoran@imscg.com[JMoran@imscg.com]; DGrochowski@us.imshealth.com[DGrochowski@us.imshealth.com]
Cc: McGlinn, Michael[Michael.McGlinn@pharma.com]; Hennessy, Joe[Joe.Hennessy@pharma.com]; Gasdia, Russell[Russell.Gasdia@pharma.com]; Richards, Tim[Tim.Richards@pharma.com]; Peterson, Laura[Laura.Peterson@pharma.com]
From: Weingarten, Brianne
Sent: Sun 8/3/2014 8:31:50 PM
Subject: RE: Action needed by next week for Joe, Mike and Brianne: Purdue Fact Pack - Steward Partners Profile Aug 3 2014_BW.pptx

Hi-

Attached is my Partners "Fact Pack". The first slide has completed action items and a partial pending "to do" list.

Also, copying Laura for sharepoint posting (this gets filed under the Partners folder).

Thanks,
BW

From: Miller, Lisa Dr.
Sent: Friday, August 01, 2014 8:49 AM
To: JMoran@imscg.com; DGrochowski@us.imshealth.com
Cc: McGlinn, Michael; Hennessy, Joe; Weingarten, Brianne; Gasdia, Russell; Richards, Tim
Subject: Action needed by next week for Joe, Mike and Brianne: Purdue Fact Pack - Steward

John and Devon,
You will find my Steward "Fact Pack" attached. Also, some general notes and info on Pain Management for Steward.

I can't seem to find the others on SharePoint and ask my colleagues to send them along to you by early next week.

Joe = Providence
Mike = Sutter
Brianne = Partners

Laura,
Will you post these under the Master Profile (Fact Pack) and General Reference (Notes) files in the Steward folder? Thank you.

Have a nice weekend, all.

Lisa

Partners HealthCare System

Greater Boston

Select IDNs in target markets: a factpack

1

Partners/General : to-do list

- Cross checking LELE reports- DONE-obtaining more info on 2 reports from M Geraci
- Which Wave 1 IDNs are Premier members? DONE
  - Partners is not a Premier member
- Follow up with Ed Michna- DONE
- 145 specialists in Addiction Medicine, Hospice and Palliative Medicine, Pain Medicine- DONE
  - Check with Peter on his IDN email list- pending

To Do

- Meet with Paul Arnstein (KOL) at Partners to test value props- September
- Research John Fanikos + Edgar Ross
- Local issue in MA: offer to IDNs and RPhs to help monitor Rxs?
  - Value proposition needed here?

Physicians

Massachusetts General

Anesthesiology/Critical Care Medicine/Pain Management
Ellis, Dan B., MD

Anesthesiology/Neurology/Pain Medicine
Ahmed, Shihab, MBBS
Brenner, Gary Jay, MD, PhD
Carinci, Adam J., M.D.
Chen, David W., MD
Chen, Lucy, MD
Cheng, Hsinlin T., MD, PhD
Cobb, Joseph Perren, M.D. (Surgery and Surgery Critical Care)
Gular, Padma, MBBS
Harrell, Priscilla Grace, MD
Mao, Jianren, MD, PhD
Rathmell, James P., MD
Wainger, Brian J., MD, PhD
Zhang, Yi, MD, PhD

Emergency Medicine/Hospice and Palliative Medicine/Pediatric Emergency Medicine/Pediatric
O.Malley, Patricia Jean, MD

Hospice and Palliative Medicine/Internal Medicine
Alexander Cole, Corinne, MD
Chittenden, Eva H., M.D.
Jackson, Vicki, MD
Jacobsen, Juliet Christine, MD, DPHI
Kamdar, Mihir M., MD
Krakauer, Eric Lewis, MD
O'Brien, Karen Anne, MD
Shin, Jennifer A., MD (+Medical Oncology)
Smith, Lorie N., MD (+Geriatric Medicine)
Wilson, Erica J., MD

Pain Medicine/Physical Medicine and Rehabilitation
Binder, David S., MD
Meleger, Alec L., MD + Newton-Wellesley
Polykoff, Gary, I., MD
Stein, Joanne B., MD (+ Sports Medicine) + Newton-Wellesley

Pain Medicine/Psychiatry/Psychology
Enders, Pamela Lynn, PhD

3

Physicians

Brigham and Women's Hospital

Addiction Medicine/Addiction Psychiatry

Ansari, Arash, MD + Faulkner Hospital

Anesthesiology/Pain Medicine

Aberle, Kathryn L., MD + Faulkner Hospital
Aglio, Linda S., MD
Bader, Angela M., MD, MPH
Bajic, Sibinka, MD, PhD
Beutler, Sascha S., MD
Billings, Felicity S., MD
Body, Simon Christopher, MD
Camann, William, MD
Cappiello, Eric C., MD
Carabuena, Jean Marie, MD
Chritton, Stewart Leith, MD, PhD
Concepcion, Mercedes A., MD
Cornella, Lauren Janis, MD
Correll, Darin J., MD
Crosby, Gregory J., MD
Crossley, Lisa Jovette, MD
Culley, Deborah J., MD
D'Ambra, Michael N., MD
Desai, Sukumar P., MD
Dylewsky, William, MD
Eappen, Sunil, MD
Farokhzad, Omid C., MD
Fox, John A., MD
Frendi, Gyorgy, MD, PhD
Gelman, Simon, MD, PhD
Gerner, Peter, MD
Gross, Wendy L., MD
Grover, Meera, MD
Gugino, Laverne Dennie, MD, PhD
Halporn, John D., MD
Hart, Nada Saliba, MD
Hartigan, Philip Meade, MD
Hepner, David L., MD
Hurley, Ronald J., MD
Issa, Mohammed A., MD
Kelley, Scott D., MD
Khan, Khadija, MD
Kim, Grave Y., MD
Kodali, Bhavani S., MD
Kovacheva, Vessela P., MD
Lasic, Morana, MD
Lekowski, Robert W., Jr, MD
Lu, Jeffrey Tang, MD
Lynch, Eileen Patricia, MD
Mackiewicz, Henry, MD + Faulkner
Martin, Ramon, F., MD, PhD
McKenna, Shannon S., MD
McNicholl, Denni J., DO
Metzler, Elise C., MD
Michna, Edward, MD
Miller, Andrew D., MD
Mizuguchi, Kaoru Annette, MD, PhD
Meuhischlegel, Jochen D., MD
Napoli, David C., MD + Faulkner
Narang, Sanjeet, MD
Nascimben, Luigino, MD, PhD
Nede;jkovic, Srdjan S., MD
Negroiu, Costin C., MD + Faulkner
Nurok, Michael, MD, PhD
O'Neill, Archana P., MD
Paterno, Josemaria, MD
Philip, Beverly K., MD
Philip, James H., MD
Pilon, Robert N., MD
Ross, Edgar L., MD
Sa Rego, Monica, MD
Sadovnikoff, Nicholas, MD
Sang, Christine N., MD, MPH
Schools, Anne Grey, MD
Shaff, David A. MD + Faulkner
Shernan, Stanton Keith, MD
Shook, Douglas C., MD
Silver, David A., MD
Soens, Mieke A., MD
Soumekh, Fereshteh S., MD
Sundararman, Lalitha Vani, MD
Thaemert, Nelson L., MD
Torelli, Regina, MD
Tsen, Lawrence C., MD
Urman, Richard D., MD, MBA
Vacanti, Charlies Alfred, MD
Vacanti, Joshua C., MD
Valovska, Assia T., MD
Vlassakov, Kame V., MD
Welch, Kathleen J., MD
Xiong, Zhiling, MD, PhD
Yacoubian, Stephanie, MD
Yeh, Irene M., MD, MPH
Zhou, Jie, MD, MS

Geriatric Medicine/Hospice and Palliative Medicine/Internal Medicine

Bernacki, Rachelle E., MD
Nabati, Lida, MD
Schaefer, Kristen G., MD

Hospice and Palliative Medicine/Oncology

Balboni, Tracy A., MD, MPH (Radiation Oncology)
Selvaggi, Kathy J., MD (Medical Oncology)

4

Physicians

North Shore Medical Center

Anesthesiology/Pain Medicine
Evans, Jospeh J., DO
Field, Richard, MD
Patel, Minesh S., MD
Vaisman, Julien, MD (+ Internal Medicine)
Younan, Ernad S., MD

Emergency Medicine/Hospice and Palliative Medicine
McDonald, Kevin R., MD

Hospice and Palliative Medicine/Internal Medicine/ Family Medicine
DePodesta, Louise A., MD, (+ OBGYN)
Hays, Lewis S., MD
Patel, Stephanie, MD
Reid, Coleen M., MD
Vesel, Tamara, MD
Warren, Robert S., MD

Pain Medicine/Physical Medicine and Rehabilitation
Pau, Kaipo T., MD
Quinn, Susan S., MD

Newton-Wellesley Hospital

Anesthesiology/Pain Medicine
El Abd, Omar H., MD
Reich, Deborah L., MD
Satwicz, Paul R., MD
Sutcliffe, David G., MD

Hospice and Palliative Medicine/Internal Medicine
Ramaduri, Murali, MD

Pain Medicine/Physical Medicine and Rehabilitation
Meleger, Alec L., MD + Massachusetts General
Stein, Joanne B., MD (Sports Medicine) + Massachusetts General
Sullivan, Kevin Patrick, MD

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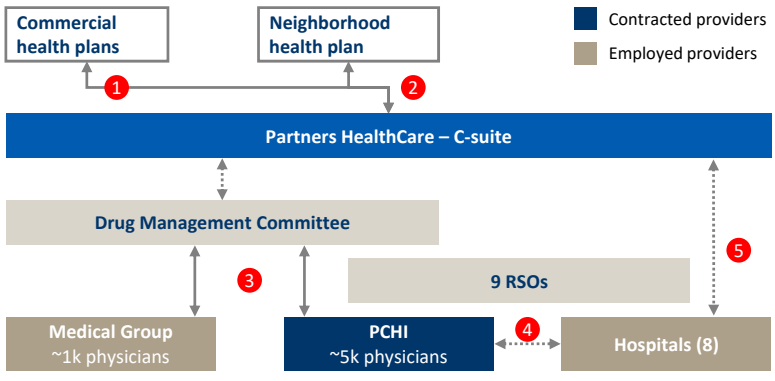
Partners HealthCare summary

Decision structure



Moderate risk sharing: Global Payments and Pioneer ACO

1. Commercial payer formularies (e.g., BCBS of MA) shape outpatient "PDL"
2. Neighborhood Health Plan is a system-owned HMO and largely independent

Decentralized inpatient, centralized outpatient formulary

3. Partners employed Interventional pharmacists ensure generic utilization and reinforce adherence to the "PDL" defined/informed by Partners' Drug Management Committee
4. PCHI physicians coordinate care within 9 Regional Service Organizations (RSO) to manage cost and quality metrics
5. No system-wide inpatient P&T committee; individual hospitals manage their own P&T

Considerations for customer coverage model

- **Regional market share:** ~25%
- **Points of leverage:**
  - Drug Management Committee members
  - Interventional Pharmacists
  - KOL within hospitals and groups
- **Potential value propositions:**
  - Cost cutting for high cost, Medical Benefits
  - Need for messaging at individual site level to match up with outpatient "PDL"

Partners HealthCare (1/6)

Demographic

HQ location	Needham, MA
Geographies	Greater Boston Area
Website	http://www.partners.org/
Total number of physicians	6,300
For profit/non-profit	Non-profit
Payor mix	Medicare: 10%; Medicaid: 20%; Commercial: 70%
340B status	Partners has multiple hospitals with 340B status
Revenue	$8.1B
Market share	25%
Medical groups:	18 Groups with 21 PCP locations

- **Partners Medical Group:**
  - PCPs: 375
  - Specialists: 350
  - Residents: 255

Medical groups, continued

- **PCHI (Partners Community HealthCare, Inc.) is a network of affiliated physicians**
  - Affiliated Pediatric Practices (APP)
  - Brigham and Women's Physician Organization (BWPO)
  - Burlington Medical Associates
  - Cambridge Health Alliance
  - Cape Ann Medical Center
  - Cape Ann Pediatrics
  - Charles River Medical Associates
  - Emerson PHO
  - Hawthorn Medical Associates
  - Hallmark Health
  - Massachusetts General Physician Organization
  - North Shore Health System
  - Newton-Wellesley PHO
  - Pentucket Medical Associates
  - Plymouth Medical Group
  - PrimaCARE
  - Tri - County Medical Associates

Partners HealthCare (2/6)

Demographic

Hospitals

8 acute-care hospitals:

- Massachusetts General Hospital (includes Mass General Hospital for Children), Boston, 907 beds
- Brigham and Women's Hospital, Boston, 750 beds
- North Shore Medical Center, composed of 3 acute-care facilities with a combined 414 beds
- NSMC Salem Hospital (includes NSMC North Shore Children's Hospital)
- NSMC Union Hospital in Lynn
- Newton-Wellesley Hospital, Newton, 218 beds
- Faulkner Hospital, Boston, 153 beds

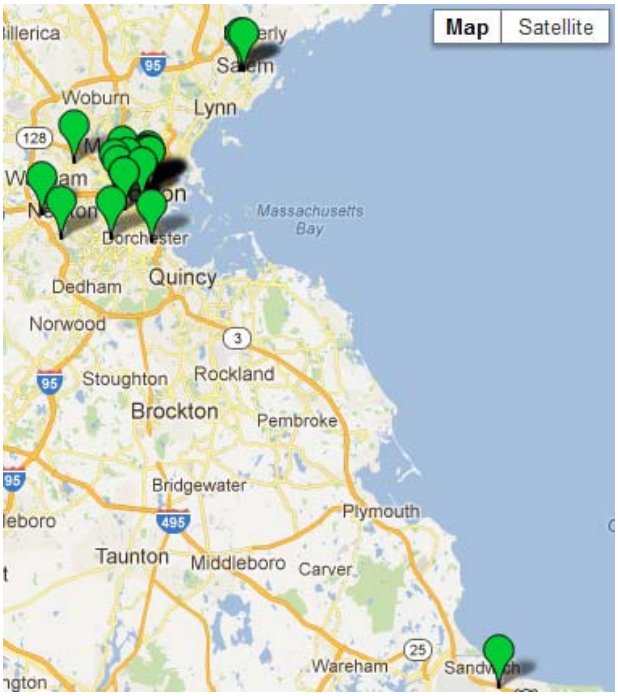
Other affiliated accounts

- Harvard Medical School
- Mass General/North Shore Center for Outpatient Care in Danvers
- Brigham and Women's/Mass General Health Care Center at Foxborough
- Dana-Farber/Brigham and Women's Cancer Center

Regional and/ or statewide collaboratives

- Greater Boston Quality Coalition
- Massachusetts Health Quality Partners

Map of Community Care Alliance



Partners HealthCare (3/6)

Structure

- **Organizational structure or decision-making process (e.g., IPA, PHO, C-suite/leadership team, etc.)**
  - MSO (Management Services Organization) for Partner's Community Health
  - Individual Hospital CEOs manage P&L
  - Outpatient formulary decisions are more centralized
- To manage outpatient utilization, pharmacist team at system level details primary care physicians
- However, Partners allows hospitals to make individual decisions regarding several drugs
  - The PCHI network is organized into Regional Service Organizations (RSOs)
- In each, physicians coordinate medical care and collaborate in other areas
- RSOs vary greatly in size and structure, ranging from a small RSO of 14 to 250+ physicians

- **Core decision-making process/criteria (e.g., clinical, economic, quality metrics)**

- Quality, economic, generic utilization (~75%)

GPO

- Novation

- Control

- **Level of regional payor control**
- High: 3 plans represent ~70% of commercial insurance
  - BCBS of MA
  - Tufts Health
  - Harvard Pilgrim

- **EMR adoption**
  - All Primary Care Physicians (PCPs) and specialists have adopted full use of the HER; this level of adoption is much better than the national average
  - ~90% of prescriptions written in hospitals go through EMR

- **Access policies**
  - Med-low

- Control cont'd

- **Formulary details**
- Drug Management Committee, chaired by primary care doctors across the system, review new outpatient drugs and cost-effective drug-tiering strategies
- This creates a medical group guideline "PDL" exists that summarizes preferred/ low cost drugs based off of regional payors formularies
- System also deploys "interventional pharmacists" to reinforce that physicians utilization and cost metrics
- For inpatient care, no system P&T committee or formulary

- **CMS demonstrations or PCMH**
  - September 2011, Partners announced it was moving all primary care to a PCMH model
- Goal for at least 50% of its primary care practices to receive official recognition as patient-centered medical homes through the (NCQA) by the end of 2013

Partners HealthCare (4/6)

Risk

Health plan ownership

- Partners also purchased Neighborhood Healthplan in 2011 (240,000 lives, mostly low income members on public plans)

Outcomes measurement initiatives

- Pioneer ACO
- Partners HealthCare has renegotiated its contract with Blue Cross Blue Shield of Massachusetts to become part of the Blue plan's Alternative Quality Contract, which is based on global payments. Partners' new contract runs through 2014
- Contract requires the system to outperform the rest of the Blue plan's provider network in controlling the growth in HealthCare spending or risk returning some of the payments it receives

Areas for risk (e.g., TA, channel, pharma benefit vs. medical benefit)

- As part of the BCBS AQC Partners has been focusing on cost containment and high-value care for high-cost conditions such as colon cancer, diabetes and stroke, and is prepared to assume risk for these and other conditions under the agreement

Physician employment/compensation structure (e.g., P4P, fee-for-service, salary)

- P4P around big disease states; piloting capitation

Opportunity

Unmet needs

- Economic value discussions to reduce costs for high-cost conditions (e.g., diabetes, stroke)
- Need for messaging at individual site level to match up with outpatient "PDL" cost cutting for high cost, medical benefits

Strategic goals and M&A activity

- Partners continues to be aggressive to attain 5-year $300 million cost cutting initiative (not including personnel/labor). Initiative is called the Patient Affordability Program
- System also aims to expand use of evidence based medicine in formulary decisions; increase level of drug interventions for formulary compliance

'Openness' to partner with pharmacos (known successes/failures

- Low (state and federal regulations discourage manufacturer sponsored programs)

Other important initiatives

- Henri A. Termeer, a retired executive Genzyme Corp., donated $10 million to Massachusetts General Hospital to create a personalized medicine program within the hospital's cancer center
- The Henri and Belinda Termeer Center for Targeted Thera-pies will focus on drugs tailored to the genetic structure of tumors, especially breast cancers, lung cancers and leukemia

Key provider profile: Partners (5/6)

Partners policies

Legislative Environment

- State and federal regulations discourage manufacturer sponsored programs

APRN prescribing:

- Must complete education relative to:
  - effective pain management, identification of patients at high risk for substance abuse, and counseling patients about the side effects, addiction, storage and disposal

PA prescribing:

- Must have a supervising physician, only Schedules II, III and IV

Partners info

Clinical goals:

- Increased integration, improved quality and improved ability to measure quality, increased efficiency, improved patient satisfaction, improved physician satisfaction, support for academic mission of the hospitals, support for service lines

Industry collaborations:

- Decision makers: Commission on interactions with industry
- Policy: http://www.partners.org/Assets/Documents/About-Us/OII/CommissionReport2009.pdf
- Recommendations: http://www.partners.org/Assets/Documents/About-Us/OII/CommissionReportRecs.pdf
- Contact office: 617-643-7752 or PHSOII@partners.org

Patient/pain

Partners initiatives

- Acute pain inpatient service

Purdue products

- Brigham: OxyContin used extensively, probably the #1 prescribed long acting. Butrans not used, although Dr. Ross wrote first 3 Rx

Education

- xx

Pain policies

- Brigham's pay for performance measured on generic Rx writing
- PAs and NPs can prescribe schedule narcotics
- Pharmacists go into clinics and push generics

Locations

- Brigham: Pain management team out of 850 Boylston location

Partners HealthCare (6/6)

Purdue connections

Master Clinical agreement

- ??

KOLs contacts

- Paul Arnstein, NP (MGH)
- Bob Jamison, PhD (BW)
- Jianren Mao, MD (MGH
- Michelle Matthews, MD (BW)
- Ed Michna, MD (BW)
- Srdjan Nedeljkovic, MD (BW)
- George Papakostas, MD (MGH
- Ajay Wasan, MD (BW)

Purdue staff connections

- Andy Ritter
- Matt _____: Familiar with ortho department. Also with clinical pharmacist who is part of pain management team, works in internal medicine. Also cardiologist Christopher Cannon. Also calls on Brig pharmacists

Other Partners contacts

- William Shrink
- Dr. Padma Galur: Director of Inpt Pain Pediatric Service at MGH. Active Bup investigator.
- Martin McQuadro, "forever in Purdue's debt" for that
- John Fanikos, Director of Pharmacy at BW.
- Carlos Rodrigues Golindo is at Dana Farber
- Chuck Verdie
- Shawn Fagan: Medical Director at Burn Unit at MGH
- Dr. Norrainge, Director of Interventional Pain Care
- Dr. Kathryn Selvange, Palliative Care

Ideas for inroads

Access

- Completely shut down to reps

Third parties

- ASPMN chapter: Past president is NP at MGH (Paul Arnstein)
- Eastern Pain Society: Have meeting in Spring
- Nurse who is having an initiative Cynthia Laggis

Other connections

- Dr . Sackler (owner) is major donor to MGH

Areas of focus in which we could partner

- QI people?
- Patient satisfaction?

Next steps

- Reach out to contacts to get their opinion
- Reach out to Dr. Sackler
- Develop ideas around QI and patient satisfaction

SOURCE: Source

Exhibit 24

To: Lowne, Jon[Jon.Lowne@pharma.com]
Cc: Rosen, David (Sales and Marketing)[David.Rosen@pharma.com]
From: Ronning, Michael
Sent: Wed 1/8/2014 11:50:43 AM
Subject: FW: Final ppt documents
2013 09 12 Final Report Phase I Diagnostic.pptx
2013 09 13 Final Report Phase II Recommendations.pdf

One more

Michael Ronning | Director, Marketing | Purdue Pharma, L.P.
michael.ronning@pharma.com | office 203.588.8090

From: Stewart, John H. (US)
Sent: Friday, September 13, 2013 2:37 PM
To: Gasdia, Russell; Mahony, Edward; Mallin, William; Ronning, Michael; Rosen, David (Sales and Marketing)
Subject: FW: Final ppt documents

In case you did not receive these directly from Arnie.

JS

From: arnab_ghatak@mckinsey.com [mailto:arnab_ghatak@mckinsey.com]
Sent: Friday, September 13, 2013 12:37 PM
To: Stewart, John H. (US)
Cc: rob_rosiello@mckinsey.com; martin_elling@mckinsey.com; laura_moran@mckinsey.com
Subject: Final ppt documents

Hi John,

Wanted to pass along the final ppt documents, that complement the memo. We are also sharing these with the core working team and involved executives such as Ed and Russ.

Arnie

(See attached file: 2013 09 12 Final Report Phase I Diagnostic.pptx)
(See attached file: 2013 09 13 Final Report Phase II Recommendations.pdf)

Arnab Ghatak
Partner
McKinsey & Company
Office 973 549 6368
Mobile 973 919 9029
Fax 973 549 1368

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+==========+

WORKING DRAFT
Last Modified 9/13/2013 11:46 AM Eastern Standard Time
Printed 9/13/2013 10:51 AM Eastern Standard Time

OxyContin growth opportunities

Phase I Final Report: Diagnostic
Sept 13, 2013

McKinsey&Company

Detailed contents (1/3)

Detailed contents (2/3)

Detailed contents (3/3)

Contents

Findings on market landscape & demand forecast

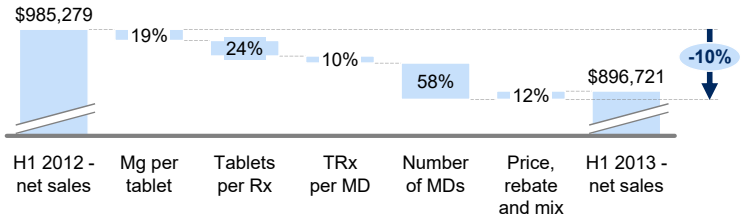
PRELIMINARY

- A number of factors have contributed to the decline in OxyContin sales, including pharmacy access, DEA actions, negative media/PROP, state legislation, managed care access, and sales force execution
- Despite an overall decline in OxyContin TRx, **greater geographical granularity reveals variation in OxyContin performance**
  - There is substantial variability in OxyContin TRx change by zip code
  - There is also substantial variability in Oxycontin share of ERO market by state
- **In the past year, about ~85% of OxyContin's decline is in-line with the decline of the overall market (branded EROs), with 15% attributable to loss of branded ERO market share**
  - Maintaining a constant share of the forecasted branded ERO market could be worth ~$3.4B of revenue over 4 years
- OxyContin performance also differs significantly across specialties
  - OxyContin TRx written by **NPs and PAs are growing quickly, while PCPs are one of the fastest declining** segments
  - OxyContin has **high share of ERO market among orthopedic specialists, surgeons, and rheumatologists**
  - There is some variability in NBRx share of TRx by specialty
  - Pallative medicine, orthopedics, and emergency medicine experienced the largest decline in OxyContin tablets/TRx in the last year
- OxyContin has a slightly lower share of the ERO market among younger prescribers, accounting for decile
- **Tablets/ Rx and strength are declining** and a significant portion of the decline can be attributed to **changing prescriber behavior**
  - Tablet per prescription has fallen steadily over the past two years
  - High dosage prescriptions are falling at a faster rate compared to low dosage tablets
  - **Tablets per prescription is declining in 47 states**, even those with a TRx increase
  - In interviews, **prescribers report writing for fewer pills and lower strengths**, and increasingly referring patients to pain specialists **due to increased time/ hassle of managing opioid patients (due to pharmacy issues, managed care access and fear of legal consequences/ DEA)**

OxyContin performance has been driven by a number of factors

Weak driver
Strong driver

OxyContin Mgs
$ 000s; % share of decline accounted for



Drivers of Oxy-Contin perform-ance

Sales force execution	▪ Only making 67% of target OxyContin P1s [1] ▪ >50% of OxyContin calls made to low-decile[2] ▪ 75% of TRx loss from doctors not called on (for 12 mos ending in Mar 2013)
Pharmacy access	▪ National pharmacies implemented policies to restrict filling of opioid prescriptions ▪ Walgreens alone accounted for 50-70% of OxyContin unit decline between Mar-Jun2013
DEA/ litigation risk	▪ 'Chilling effect' on prescribers, pharmacies and wholesalers by investigating targets but not releasing written guidance ▪ More hassle for doctors to prescribe opioids ▪ No differentiation between AD and non-AD
Neg. media/ PROP	▪ CDC names drug overdose as leading cause of injury death in US, with 45% involving prescription painkillers
State legislation	▪ States passing regulations for prescribing and dispensing of opioids (e.g., PMP use, licensing, dosing levels)
Managed care	▪ Positive impact from average rebate rate declining from 26% to 24.7%, price increase and mix shift ▪ Formulary status lost for several Part D plans[3]

1For H1 2013
2Low decile refers to deciles 0-4; based on Q1 2013
3 Over past 3 years

Despite an overall decline in OxyContin TRx, greater granularity reveals pockets of growth

	States	Territories	Zip codes	Prescribers
				
Total #	50	525	9,000	200,000
% increasing TRx	20%	26%	39%	47%
% decreasing TRx	80%	74%	61%	53%
% increasing Tabs/ TRx	7%	17%	43%	n/a
% decreasing Tabs/ TRx	93%	83%	57%	n/a

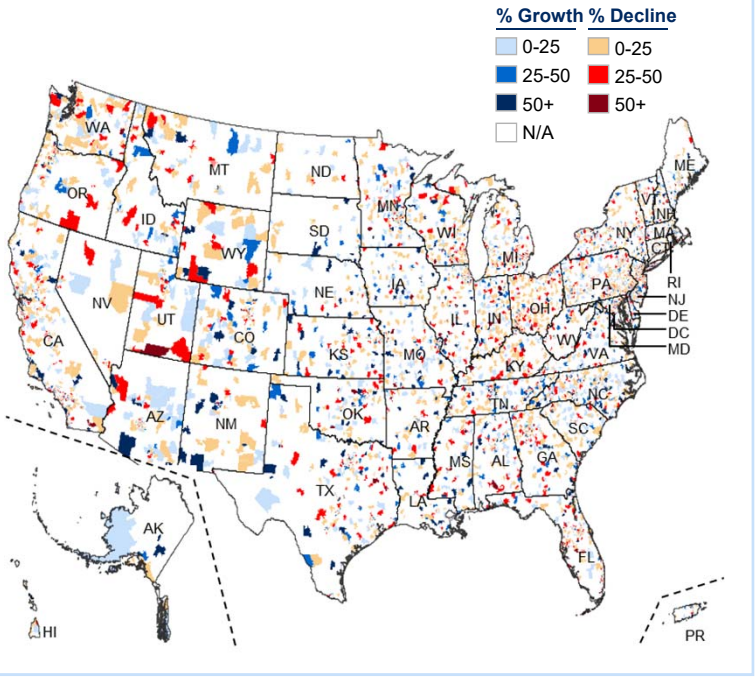
Note: Calculations are for 12 mos ending in March 2013 vs 12 mos ending in March 2012

SOURCE: IMS

There is substantial variability in OxyContin TRx change by zip code

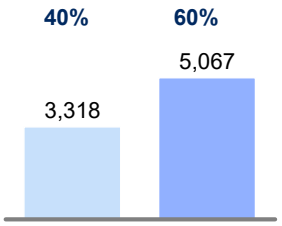
TRx change by zip code, Apr 2011-Mar 2012 v. Apr 2012-Mar 2013

Percent



Number of growing and declining zip codes[1]

Number of zipcodes



	Growing zipcodes	Declining zipcodes
Avg TRx/zip	**669**	**538**
Example zip codes	Fort Wayne, IN (+5.1K) Pinehurst, NC (+3.2 K) Fayetteville, NC (+2.6K)	Knoxville, TN (-1.9K) Tampa, FL (-1.9K) Renton, WA (-1.5K)

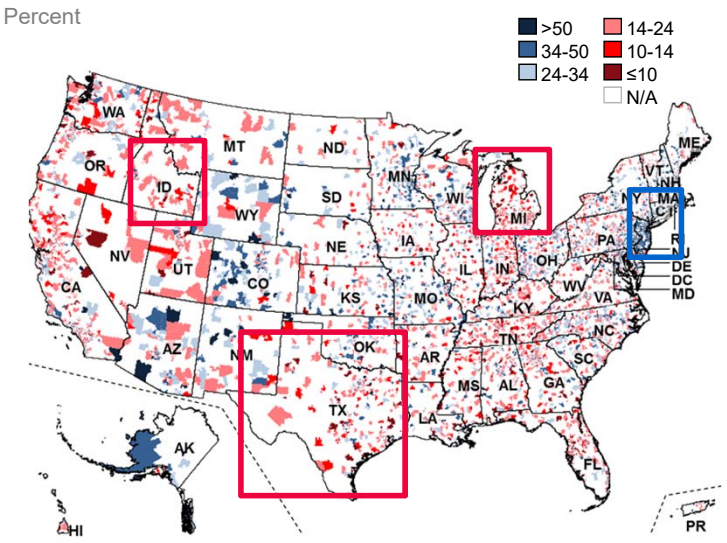
1 Zip codes with fewer than 60 Oxycontin TRx in both 2011 and 2012 were not considered, accounting for approximately 100,000 TRx in 2011 and 2012

SOURCE: IMS; Purdue Sales and Marketing; Team analysis

There is also substantial variability in Oxycontin share of ERO market by state

PRELIMINARY

Oxycontin share of ERO market by zip, 2012[1]



- There are potentially state level factors influencing OxyContin market share

States with highest & lowest OxyContin share of ERO market, 2012

State	Oxy Share	Gx Share
Highest		
Rhode Island	43	50
New Jersey	41	47
Connecticut	41	47
D.C.	37	52
Minnesota	37	60
Lowest		
Nevada	14	74
Michigan	16	77
Mississippi	17	71
Texas	18	68
Idaho	18	72
US Average		
US	24	65

1 April 2012 to March 2013

SOURCE: IMS

In states where OxyContin has low share of ERO market, generics have higher share

2012[1] share of ERO market, highest and lowest share states
Percent

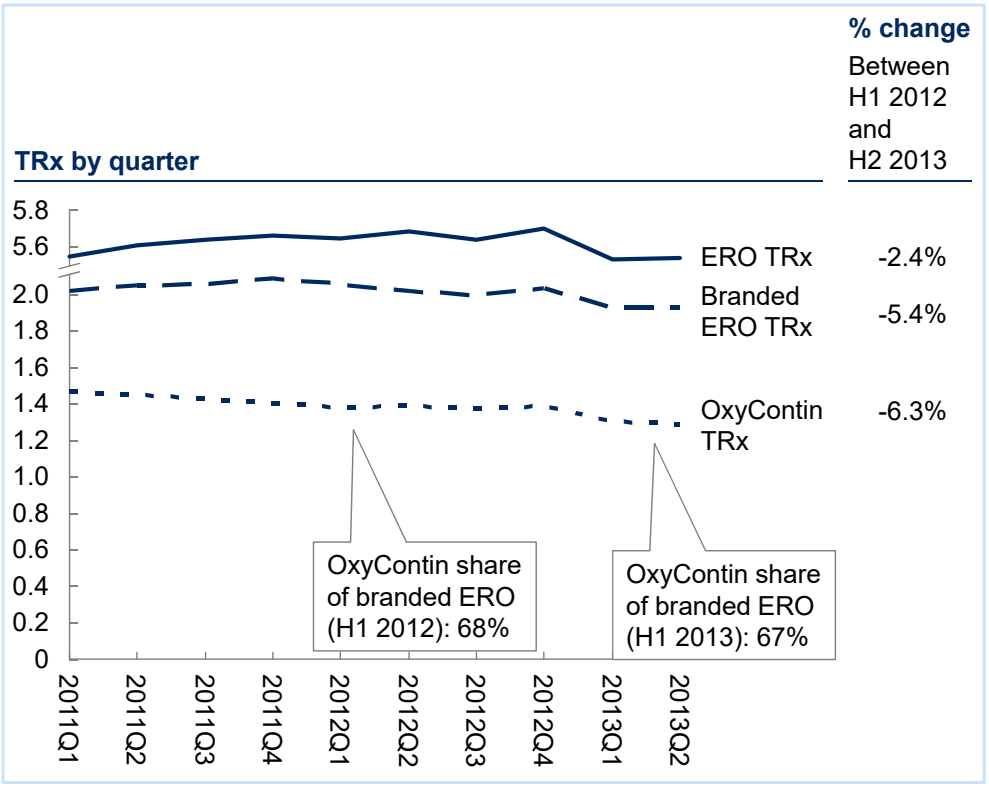
	State	All Other Branded	BUTRANS	OPANA ER	OXYCONTIN	Generic
Highest Share of ERO	RI	3%	2%	2%	43%	50%
	NJ	6%	2%	4%	42%	47%
	CT	6%	2%	4%	41%	47%
	DC	5%	3%	3%	37%	52%
	MN	1%	1%	1%	37%	60%
Avg		4%	2%	3%	40%	51%
Lowest Share of ERO	NV	4%	1%	7%	14%	74%
	MI	4%	1%	3%	16%	77%
	MS	6%	2%	5%	17%	71%
	TX	6%	5%	4%	18%	68%
	ID	5%	3%	2%	18%	72%
Avg		5%	2%	4%	17%	72%
	All 50 States	5%	2%	4%	24%	65%

- In states where OxyContin has low share of ERO market, generics have higher share
- **Among states where OxyContin has low share of ERO:**
  - **NV** and **MS:** Opana share of market is above national average
  - **TX** and **ID:** Butrans share of market is above national average

1 April 2012 to March 2013

SOURCE: IMS

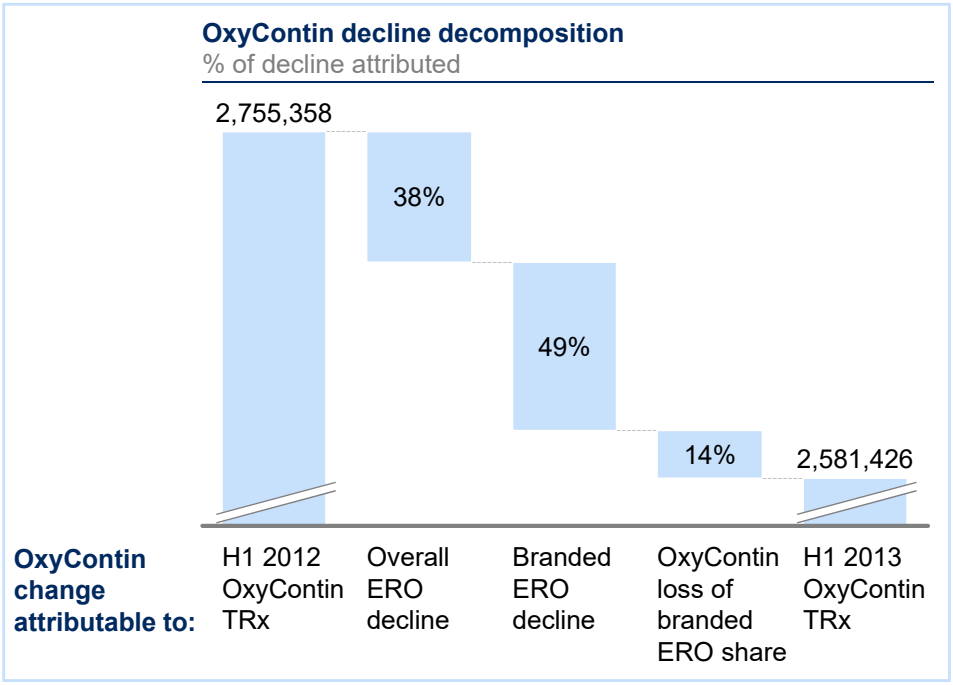
OxyContin's decline has been faster than decline of branded ERO products



OxyContin decline has been faster than overall ERO market and branded ERO market, indicating that OxyContin has lost share of branded EROs

SOURCE: IMS

OxyContin's recent decline can largely be attributed to decline in branded ERO market

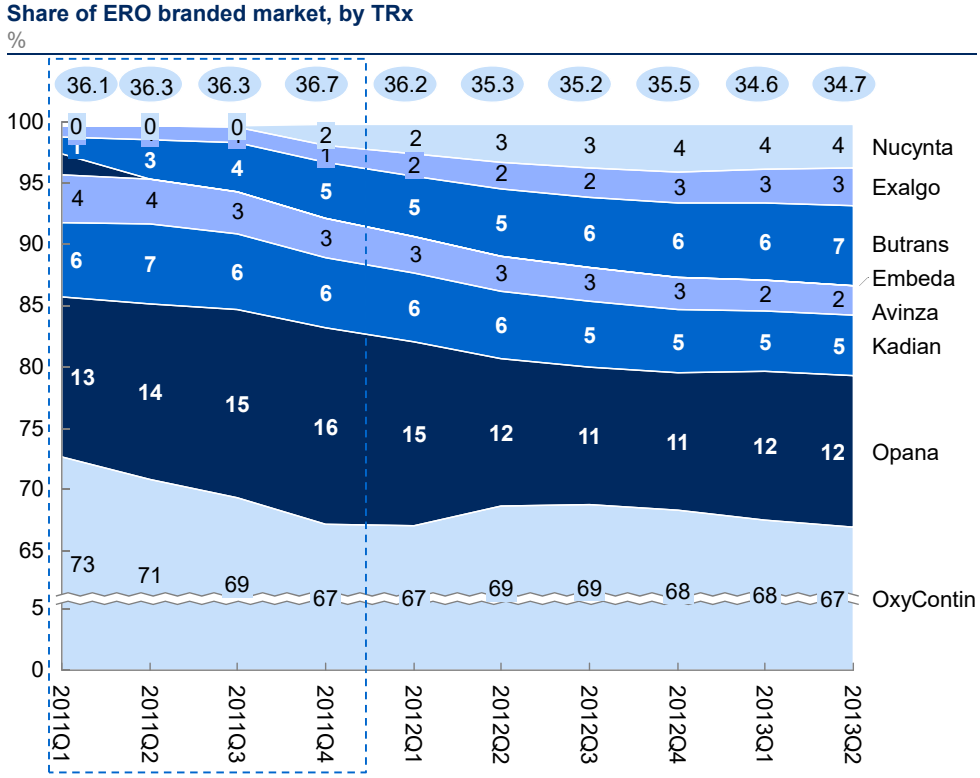


While OxyContin has lost share of branded ERO, the largest portion of OxyContin's decline can be attributed to overall decline in ERO and branded ERO

SOURCE: IMS

While branded drugs overall lost share in the ERO market, OxyContin also lost share to other branded products

Share of ERO branded market, by TRx



Branded share of ERO market

Period of reformulation introduction and OxyContin generics exiting market

- OxyContin share of branded EROs has fallen from 73% to 67%
- Butrans, Exalgo, and Nucynta have increased share of the branded ERO market

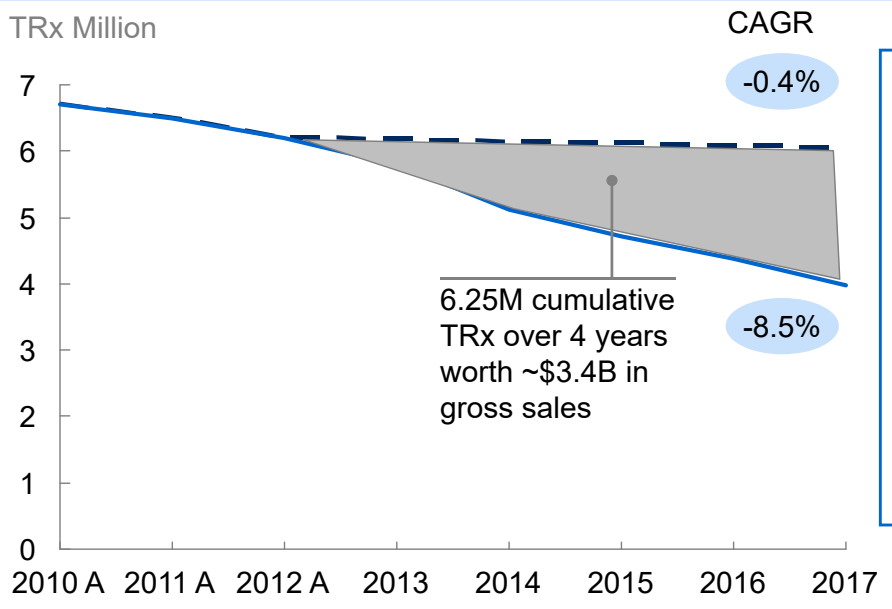
SOURCE: IMS

Maintaining a constant share of the forecasted branded ERO market would be worth ~$3.4B of revenue over 4 years

Forecast @ constant share of branded ERO market

Purdue forecast[1]

Projected OxyContin TRx

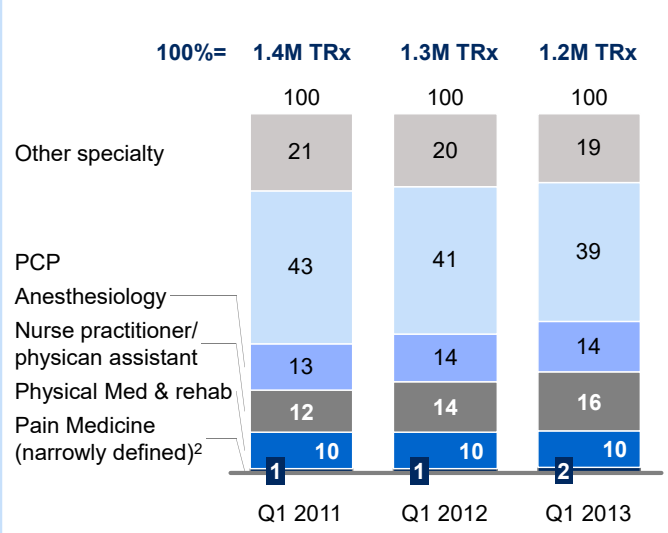


- 2012-17 external forecast growth rates
  - All Opioids: 1.8%
  - EROs: -0.4%
  - Branded EROs: -0.4%
  - OxyContin: -8.5%
- How much can be captured/retained by Oxy? At what cost?

SOURCE: Cowen and Company "Therapeutic Categories Outlook" report, October 2012, Purdue mid-year revised forecast, Purdue mid-year update 2013 forecast; McKinsey analysis

NPs and PAs are growing quickly, while PCPs are one of the fastest declining segments

OxyContin % TRx by prescriber specialty



	2011-13 TRx CAGR (%)	Number of prescribers 2012 (% Purdue Reach)	TRx/prescriber (2012)
Other specialty	-11	68,400 (12%)	15
PCP	-10	92,724 (31%)	24
Anesthesiology	-2	4,842 (66%)	153
Nurse practitioner/ physican assistant	11	30,206 (25%)	26
Physical Med & rehab	-4	4,976 (57%)	111
Pain Medicine (narrowly defined)2	5	373 (73%)	207

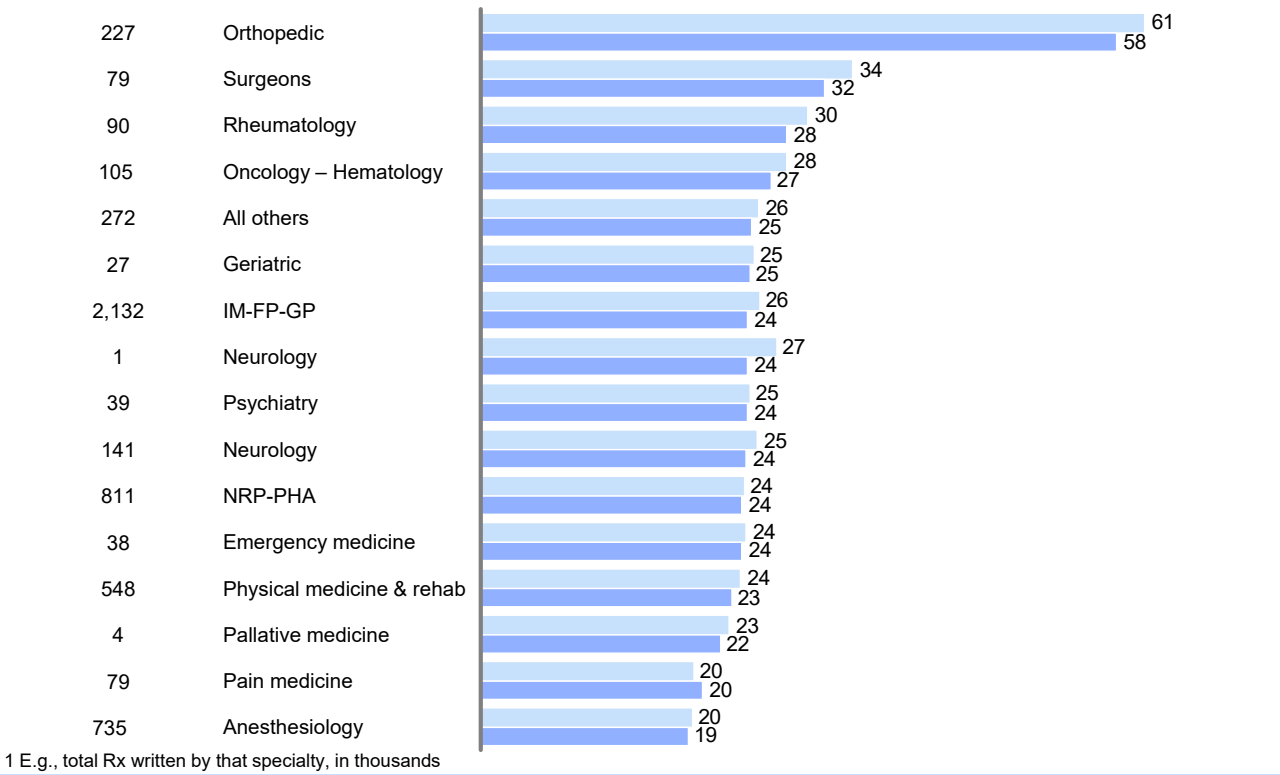
- Nurse practitioner/assistant TRx growing at double-digit rates[1]
- PCPs are one of the fastest declining segments of the market
- Narrowly defined pain specialists account for <2% of TRx

1 NPs can prescribe controlled substances in 41 states
2 Does not include pain medicine as a subspeciality

SOURCE: IMS; NP Central; Team analysis

OxyContin has high share of ERO market among orthopedic specialists, surgeons, and rheumatologists

PRELIMINARY

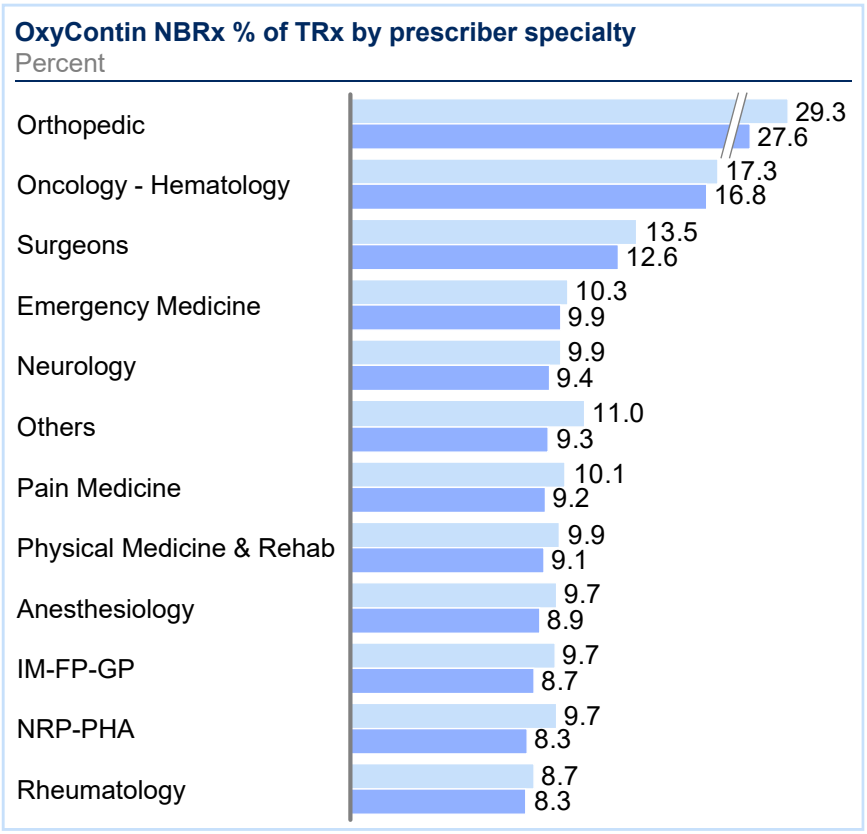


1 E.g., total Rx written by that specialty, in thousands

SOURCE: IMS

There is variability in NBRx share of TRx by specialty

PRELIMINARY



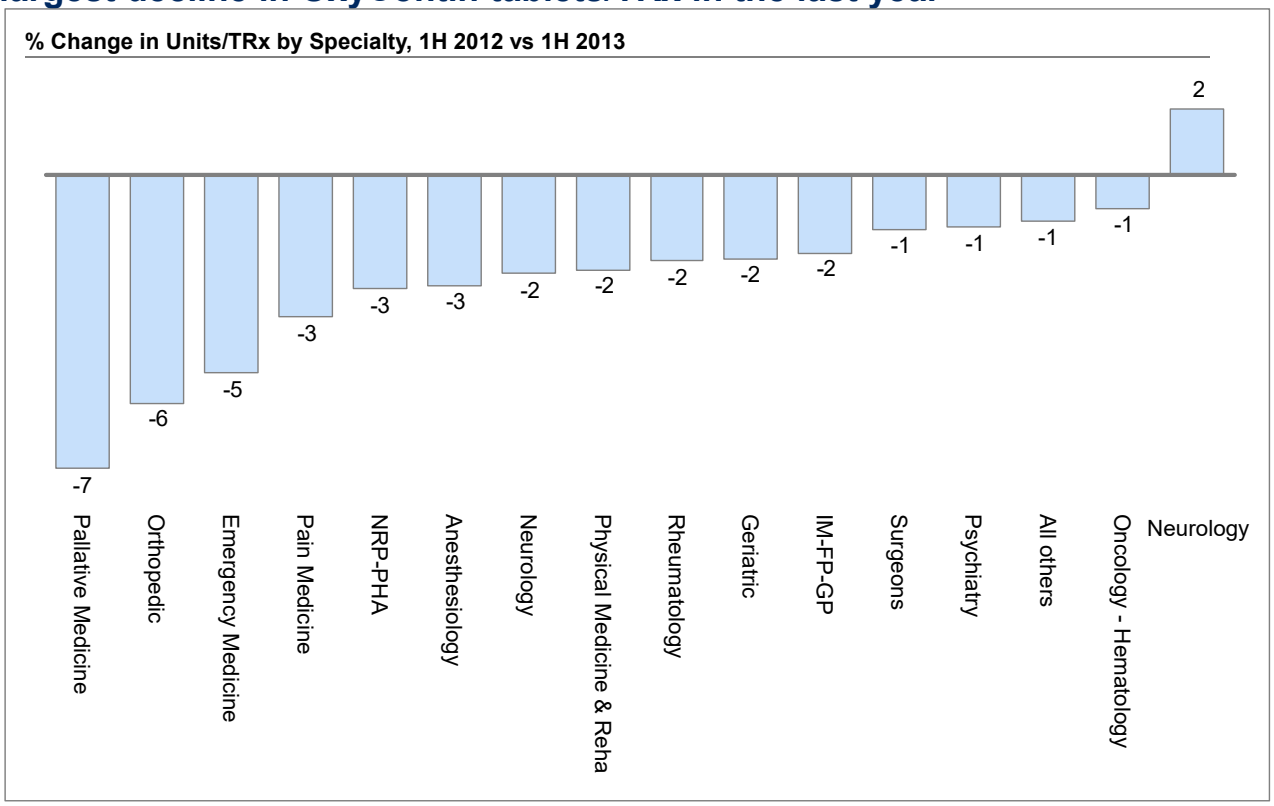
- Orthopedic and Oncology-Hematology, and Surgeons have the highest NBRx % share of overall TRx
- NP/PA segment has a very low NBRx % of TRx
- Average NBRx share of TRx across all specialties was **9.4%** in Q4 2012 – Q1 2013, down from **10.4%** Q4 2011 – Q1 2012

Last Modified 9/13/2013 11:46 AM Eastern Standard Time

Printed 9/13/2013 10:51 AM Eastern Standard Time

SOURCE: IMS

Pallative medicine, orthopedic, and emergency medicine experienced the largest decline in OxyContin tablets/TRx in the last year

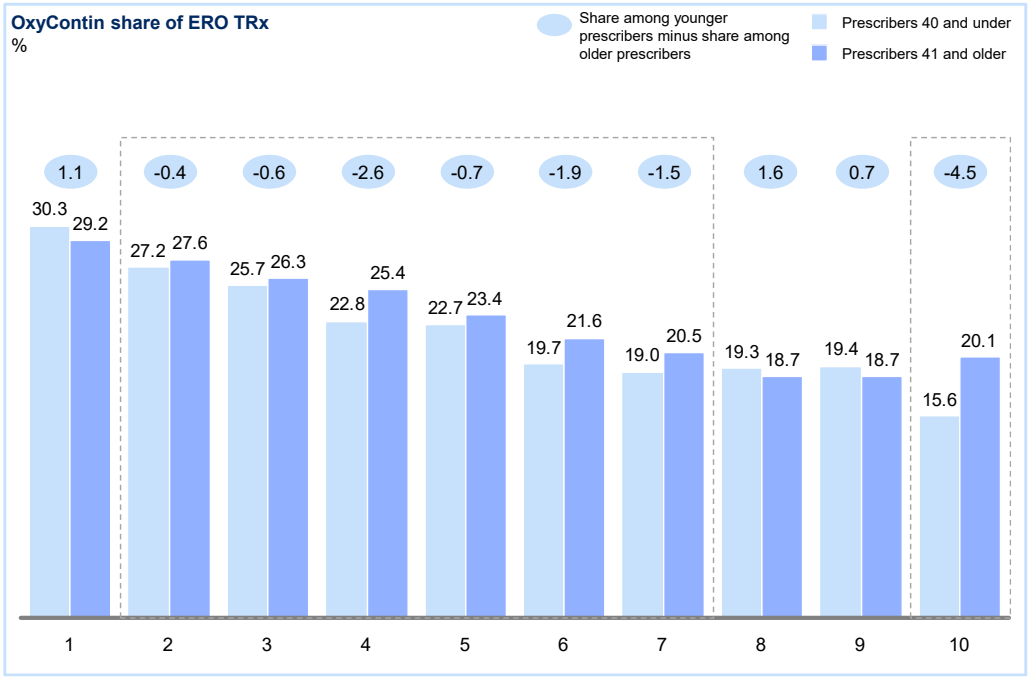


Last Modified 9/13/2013 11:46 AM Eastern Standard Time

Printed 9/13/2013 10:51 AM Eastern Standard Time

SOURCE: IMS

OxyContin tends to have a lower share of ERO among younger prescribers, even after controlling for decile



- If OxyContin had same share of ERO among younger prescribers as older prescribers, this would imply ~20k incremental scripts or $6.9mn in net revenue
- However, bigger challenge may be that younger prescribers with different prescribing habits will eventually fill the market

Note:ERO decile and OxyContin share of ERO is based on Jan-Jun 2013 data. AMA and AOA profile information is not comprehensive and does not cover all HCPs who have prescribed for ERO in the last 6 months.

SOURCE: IMS; AMA; AOA; Purdue marketing team; Team analysis

Prescribers report writing for fewer pills and lower strengths, and increasingly referring patients to pain specialists

Prescribers are writing for **fewer pills and lower strengths, and increasingly referring patients to pain specialists…**

- "I try to use more long-acting opioids (to reduce pill count) and **try to prescribe fewer pills and lower strengths**… because it's less to worry about… less potential for addiction and diversion"- *Primary care physician in Family Practice*
- "[There's] increased review of physician practice. **Many of my colleagues are hesitant and prescribe less**. I do too. **I just don't want to take up with the task**" – *Family Practitioner*
- "**Made decision about 9 months ago to funnel patients to pain clinics** for patients taking medication for chronic use"- *Primary care physician in larger practice*

… because managing **opioid patients takes increasing amount of time and resources due to pharmacy issues, managed care access and fear of legal consequences/ DEA**

Pharmacy issues

- "I think [pushback from pharmacies] does impact my prescribing behavior… I will think I don't want to prescribe this because I'm going to get pushback … then I will prescribe something that will get less push back… **a different drug and/or lower doses**" – *Primary care physician in small group practice*

Managed care access

- "Cost is a main driver of deciding what drug to prescribe to patients…Outpatients are still largely driven by cost and tiers, which makes **prescribing generics and narcotics the easier choice**" – *Primary care physician*

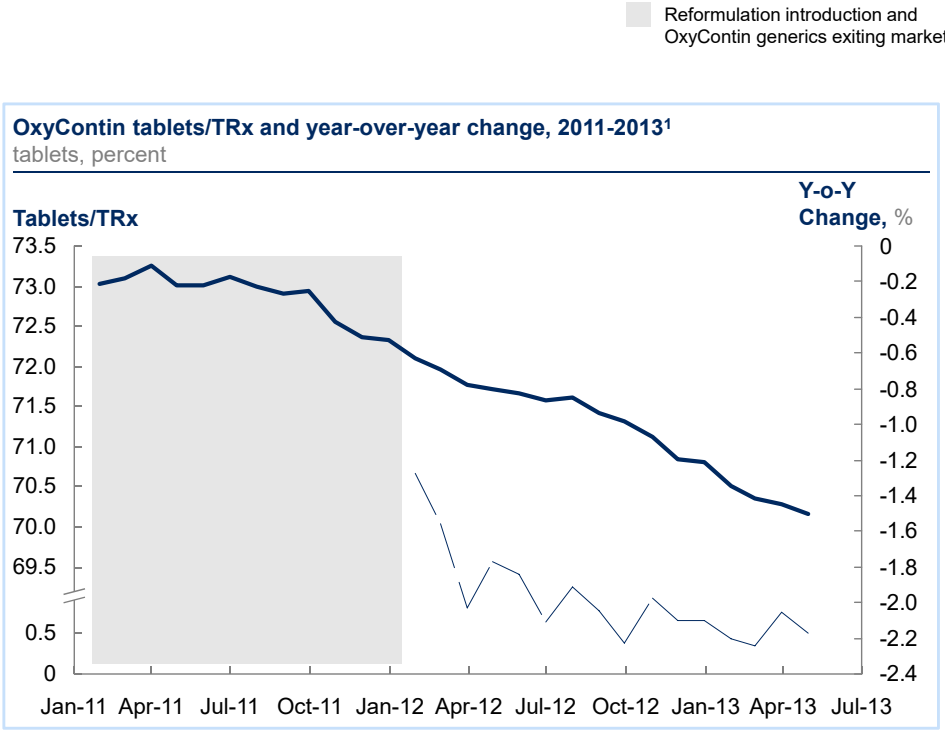
Legal/ DEA concerns

- "There seems to be a **growing trend of referrals to pain specialists** today- Doctors **prescribe lower doses of narcotics**, and **even pain specialists move away from opiates**. This is likely driven by increased media attention, high abuse rates, and prescribers fearing regulatory and legal complications" – *Medical Director of major pain center*

Note: Full prescriber interview summaries are available in the appendix

SOURCE: Prescriber interviews

Tablet per prescription has fallen steadily over the past two years



- 2011 average tablet/Rx was 72.9[2], 71.5 for 2012, and 70.3 for 2013 (YTD)
- Year-over-year decline was -1.9% between 2011 and 2012, while the decline between 2012 and 2013 YTD is -1.6%

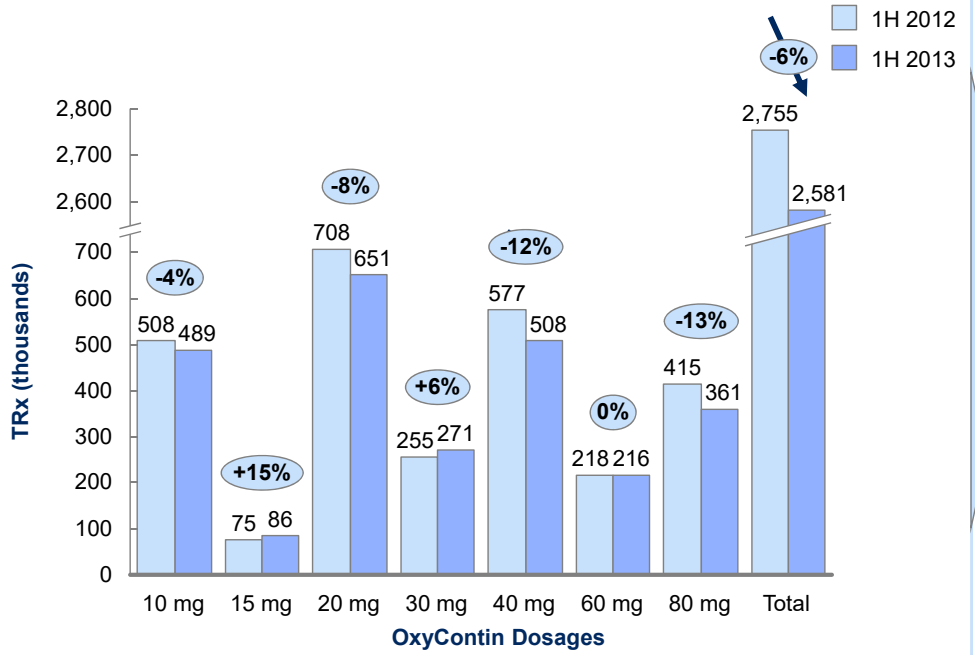
1 Data from Jan 2011 to April 2013

2 January to December calendar year, same applies for 2012 figure

SOURCE: IMS

High dosage prescriptions are falling at a faster rate compared to low dosage prescriptions

OxyContin TRx by dosage, 1H 2012 vs 1H 2013



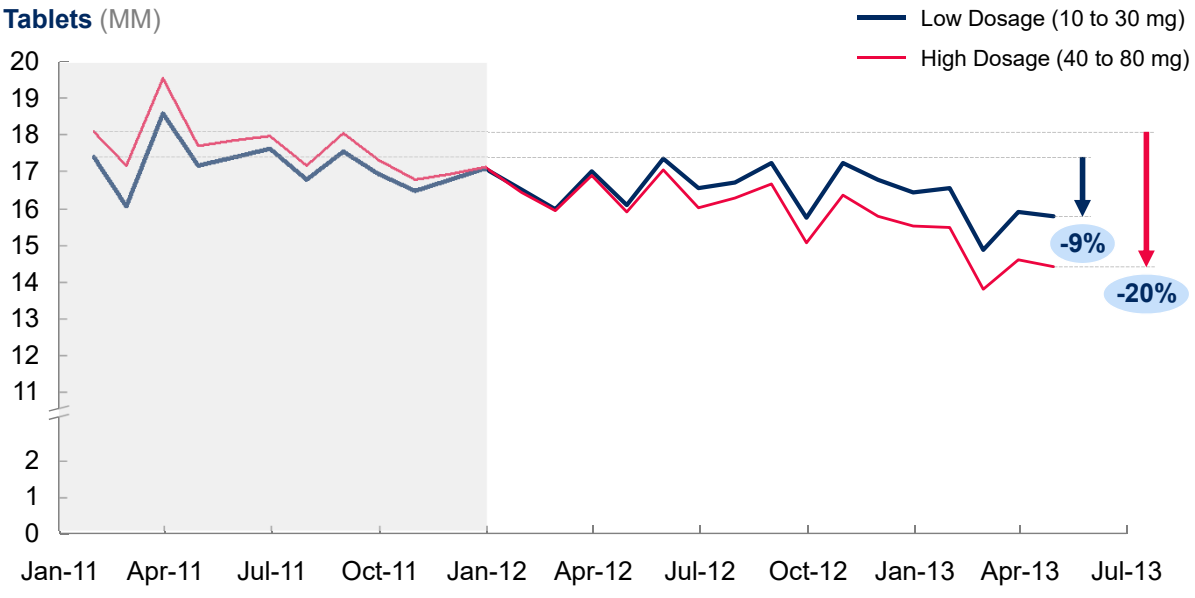
- 80 mg and 40 mg prescriptions are declining most rapidly
- 15 mg and 30 mg prescriptions have the highest rate of growth
- Low dosages (10-30 mgs) declined at 3%, while high dosages (40-80 mgs) declined at 10%

SOURCE: IMS

Tablets with higher dosage are declining at a higher rate compared to low dosage tablets

Reformulation introduction and OxyContin generics exiting market

Tablets prescribed, high versus low dosage, Jan 2011 – Jul 2013
Millions of tablets



SOURCE: IMS

Milligram per tablet has fallen steadily over the past two years, with rate of decline remaining relatively constant in the past year

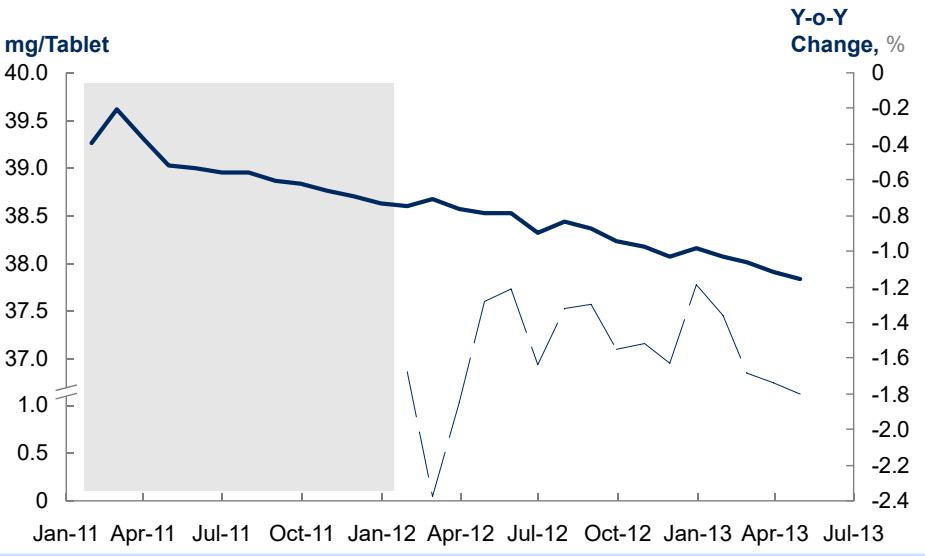
Reformulation introduction and OxyContin generics exiting market

mg/Tablet (RHS)

YOY Change (%, LHS)

OxyContin Mg/Tablet and year-over-year change, 2011-2013[1]

milligrams, percent



- Average mg/tablet was 39.0 for 20112, 38.4 for 2012, and 38 for 2013 (YTD)
- Rate of decline of average mg/tablet was -1.6% between 2011 and 2012, and -1.1% between 2012 and 2013 (YTD)

1 Data from Jan 2011 to April 2013

2 January to December calendar year, same applies for 2012 figure

SOURCE: IMS

Tablets per prescription declined in 47 states, even those with a TRx increase

	Tablets (mn)			TRx			Tablets/ TRx				Tablets (mn)			TRx			Tablets/ TRx		
State	H1 2012	H1 2013	% change	H1 2012	H1 2013	% change	H1 2012	H1 2013	% change	State	H1 2012	H1 2013	% change	H1 2012	H1 2013	% change	H1 2012	H1 2013	% change
FL	11.7	9.7	-17%	164,196	139,348	-15%	71.2	69.3	-3%	LA	2.0	1.9	-5%	28,669	27,962	-2%	68.8	66.7	-3%
NV	1.6	1.3	-16%	20,779	17,896	-14%	77.5	75.3	-3%	ID	0.9	0.9	-5%	13,670	12,819	-6%	66.5	67.1	1%
KY	2.8	2.4	-14%	42,523	37,013	-13%	66.1	65.1	-2%	SD	0.6	0.5	-5%	8,395	8,263	-2%	66.9	64.3	-4%
RI	1.2	1.0	-14%	16,149	14,203	-12%	72.1	70.5	-2%	MS	1.1	1.1	-5%	16,288	15,755	-3%	68.3	67.0	-2%
NM	1.5	1.3	-13%	20,278	18,291	-10%	72.3	69.6	-4%	NH	1.5	1.4	-5%	23,275	22,277	-4%	63.7	63.2	-1%
OH	8.5	7.4	-13%	120,769	107,151	-11%	70.4	68.9	-2%	NY	10.9	10.3	-5%	140,208	137,538	-2%	77.7	75.2	-3%
WA	4.8	4.2	-13%	69,738	61,510	-12%	68.5	67.8	-1%	PA	11.3	10.8	-5%	161,796	156,234	-3%	70.1	69.0	-2%
WV	1.0	0.9	-12%	15,529	13,636	-12%	66.7	66.5	0%	CT	4.1	3.9	-5%	56,894	55,493	-2%	72.3	70.8	-2%
TX	7.6	6.7	-12%	98,162	86,656	-12%	77.8	77.2	-1%	TN	6.1	5.8	-4%	85,140	84,941	0%	71.6	68.7	-4%
UT	1.9	1.7	-12%	26,238	23,763	-9%	72.2	70.0	-3%	NJ	7.9	7.5	-4%	114,460	112,143	-2%	68.7	67.3	-2%
CO	4.6	4.0	-12%	70,162	62,989	-10%	65.2	64.2	-2%	MD	4.2	4.1	-4%	60,452	59,344	-2%	70.2	68.7	-2%
OR	3.4	3.0	-12%	48,787	43,368	-11%	70.7	70.3	-1%	DC	0.4	0.4	-3%	6,767	6,680	-1%	61.3	60.0	-2%
AZ	6.9	6.1	-11%	90,549	82,124	-9%	76.0	74.2	-2%	NC	7.5	7.3	-3%	104,418	104,941	1%	72.2	69.7	-3%
HI	0.7	0.6	-11%	10,614	9,574	-10%	69.0	67.8	-2%	VA	4.3	4.1	-3%	60,577	60,926	1%	70.2	67.9	-3%
IA	1.3	1.2	-11%	19,919	18,091	-9%	65.9	64.4	-2%	AR	1.6	1.6	-3%	24,576	23,257	-5%	66.2	68.2	3%
MI	5.2	4.7	-11%	68,249	61,550	-10%	76.5	75.7	-1%	SC	2.9	2.8	-3%	40,849	41,017	0%	70.6	68.5	-3%
CA	18.5	16.6	-11%	218,838	201,602	-8%	84.6	82.1	-3%	AK	0.5	0.5	-2%	6,958	6,903	-1%	70.2	69.6	-1%
MN	4.0	3.6	-10%	61,036	56,581	-7%	64.9	62.8	-3%	MA	4.7	4.7	-1%	67,588	67,549	0%	69.9	69.0	-1%
WI	5.2	4.7	-10%	72,739	66,266	-9%	71.5	70.5	-2%	PR	0.1	0.1	3%	2,934	2,874	-2%	46.0	48.5	6%
VT	0.4	0.4	-9%	6,842	6,172	-10%	61.0	61.2	0%	DE	0.9	1.0	8%	14,209	15,709	11%	66.5	65.3	-2%
IL	3.7	3.4	-9%	53,903	50,036	-7%	69.2	67.8	-2%	Grand Tot	197.8	181.2	-8%	2,755,391	2,581,457	-6%	71.8	70.2	-2%
KS	2.3	2.1	-9%	34,857	32,296	-7%	66.6	65.5	-2%										
ME	1.3	1.2	-8%	18,780	17,757	-5%	68.3	66.3	-3%										
MT	0.8	0.8	-8%	12,662	11,770	-7%	64.8	63.9	-1%										
ND	0.4	0.3	-8%	6,090	5,612	-8%	59.9	59.8	0%										
IN	4.7	4.4	-7%	65,539	63,080	-4%	72.1	69.6	-3%										
GA	4.3	4.0	-7%	63,725	59,739	-6%	67.6	67.2	-1%										
MO	4.9	4.6	-7%	70,566	67,082	-5%	69.6	68.3	-2%										
OK	3.7	3.4	-7%	51,173	48,529	-5%	71.4	70.4	-1%										
AL	3.7	3.5	-6%	54,750	52,548	-4%	68.4	66.8	-2%										
NE	0.9	0.9	-6%	14,895	14,308	-4%	62.8	61.5	-2%										
WY	0.4	0.4	-6%	6,203	5,939	-4%	65.8	64.6	-2%										

- **TRx has decreased in 46 of states** while units/TRx has decreased in every state except Idaho, Arkansas, and Puerto Rico
- States with the **highest percentage decrease in TRx are Florida, Nevada, Kentucky, and West Virginia**

SOURCE: IMS

Contents

Findings on messaging and positioning

PRELIMINARY

- **Opioids overall are still viewed as effective and necessary class of painkillers**, though side effects and addiction are concerns

- Key themes from prescriber interviews on abuse deterrents include:
  - Prescriber awareness of abuse deterrence and label change is mixed
  - Opinions on impact/efficacy of abuse deterrence vary
  - Most prescribers are concerned about abuse, but attempt to establish measures to protect themselves
  - Concerns remain that technology does not address oral abuse
  - Less informed prescribers ask for additional information and education around abuse deterrent formulations

- Existing market research suggests that **most physicians do not feel that reformulation positively impacts their prescribing behavior**, and that **diversion, abuse and regulatory concerns continue to weigh on prescribers**

Opioids overall are still viewed as effective and necessary class of painkillers, though side effects and addiction are concerns

"Short term use of opiates is highly efficacious, however concerns about safety arise for longer-term use"

- Medical Director of major pain center

"If you remove opioids totally from the picture there's no way to treat a lot of types of pain patients"

– Anesthesiologist and pain specialist

"Opioids are often the preferred choice for long-term treatment, as side effects for NSAIDs can be more severe"

– Primary care physician

"Very good, strong medications, very good relief, only problem is they don't want them to be first line of treatment"

– Medical Director of major pain center

Note: Full prescriber interview summaries are available in the appendix

SOURCE: Prescriber interviews

Awareness of abuse deterrence and impact on prescribing varies amongst prescribers (1/3)

Key themes	Supporting evidence
Prescriber awareness of abuse deterrence and label change is mixed	▪ "I am only vaguely aware of abuse deterrence"- *Primary care practitioner* ▪ "In the end it doesn't really hurt anyone, to the extent that I understand the technology" – *Private practitioner and assistant professor at large medical school* ▪ "I know (abuse deterrent reformulations) exist"- *Family practitioner* ▪ "For some people (abuse deterrence) probably matters, such as first time prescribers and non-specialists, but for specialists, (the label change) probably doesn't make much of a difference because they were already aware of the reformulation (before the label change)- *Anesthesiologist and Head/Neck surgeon* ▪ "I knew already since 2010 about (OxyContin's abuse deterrence), so the new labeling doesn't make big difference" – *Physical Rehabilitation and Pain specialist*
Most prescribers are concerned about abuse, but attempt to establish measures to protect themselves	▪ "(Concern about abuse) hasn't changed that much, because (prescribers in practice) follow preferred and recommended guidelines- *Chief of Interventional Spine and Pain Management at major hospital* ▪ "(Abuse is) main concern in every practice…and we need (abuse monitoring) resources because of the nature of our practice" – *Pain specialist in private practice* ▪ "I'm always worried about (abuse) and definitely see it"- *Internist* ▪ "If I get an inkling, I check immediately and warn the patient" – *Family doctor in family group practice* ▪ "I worry about diversion…same thing for Adderall, valium, etc…"- *Family practitioner in private practice*

SOURCE: McKinsey prescriber interviews

Awareness of abuse deterrence and impact on prescribing varies amongst prescribers (2/3)

Key themes	Supporting evidence
Opinions on impact/efficacy of abuse deterrence vary	▪ "Abuse deterrence is a good thing…I would choose abuse deterrent drugs every time, if patient insurance covers it" – *Anesthesiologist and Pain Management Physician at major hospital* ▪ I had extremely curtailed the prescription for OxyContin, but now that I see the clinical difference, I am much more comfortable writing for it"- *Private practitioner with pain management fellowship* ▪ "It's a win-win for everyone, as long as the price is ok" – *Physician at major hospital* ▪ "(I would) certainly (prescribe abuse deterrent formulations)…you never know who you're dealing with"- *Internist* ▪ "(OxyContin reformulation is a) much better reformulation…but having said that, many pain doctors are still humans and suffer from emotional inhibition bc of all the bad press it had, bc it still has the name OxyContin"- A*nesthesiologist with fellowship in pain management* ▪ "(Abuse deterrent formulations) are good faith effort to show reasonable response to the abuse issues"- *Chief of Interventional Spine management at large hospital* ▪ "These are (nonetheless) control substances, whether they can be abused or not, we have to assume they are abused"- *Family practitioner in private practice*

SOURCE: McKinsey prescriber interviews

Awareness of abuse deterrence and impact on prescribing varies amongst prescribers (3/3)

Key themes	Supporting evidence
Concerns remain that technology does not address oral abuse	▪ "I don't know how effective abuse deterrence is in practice…Just because you can't crush something, doesn't mean you can't eat all your pills at once" –*Primary care physician specializing in internal medicine* ▪ "No formulation on the market that is overdose resistant" - *Pain Management and Physical Medicine and Rehabilitation* ▪ The only abuse deterrence I would put any stake in is when you add niacin (to prevent oral abuse)"- *Anesthesiologist and Pain Management Physician at major hospital*
Less informed prescribers ask for additional information and education around abuse deterrent formulations	▪ "The FDA decision [on OxyContin] should carry weight...data would very valuable...should be incentive to use this medicine"- *Addiction specialist* ▪ "There are several studies on abuse deterrence out there…what we need is information from trustworthy sources" – *Anesthesiologist and Head/Neck surgeon* ▪ "(It would be good) if pharma companies made it more clear that this drug is now a preferred medicine"- *Private practitioner and assistant professor at large medical school* ▪ "I haven't seen any data that shows effectiveness of abuse deterrence… not statistics" – *Family practitioner* ▪ "I want to see that (the drug) is not diverted and used on the street…I don't find the (existing) data all that compelling"- *Anesthesiologist and Pain Specialist at large hospital* ▪ "If there is enough education, we may be using them more frequently, to mitigate abuse" – *Family doctor in family group practice*

SOURCE: McKinsey prescriber interviews

OxyContin specific prescriber market research shows regulatory concerns and media/press weigh on prescribers, despite reformulation

Topic	Key take-aways	Study	Source	Timing/when
Market dynamics	▪ Prescribers with increasing TRx stated **increase in patients with pain, leading to increases in OxyContin prescriptions** ▪ Prescribers with **decreasing TRx stated regulatory concerns and media/press** as key drivers	OxyContin prescriber comparison	PJ Quinn	May, 2012
	▪ **Duragesic and MS Contin considered main competitors** ▪ **Key market drivers**: safety, tolerability, efficacy, good patient satisfaction, and favourable dosing	OxyContin Brand Health Tracker	Synovate Healthcare	July, 2011
Abuse awareness and prescribing behavior	▪ **Abuse and diversion are main deterrence** factors; class wide issue, with higher salience for Oxy	ONU/Oxy Copositioning	PJ Quinn	November, 2012
	▪ Majority of prescribers stated that **prescribing behavior is unlikely to change**	OxyContin new formulation awareness	Synovate healthcare	October, 2010
Awareness on abuse deterrence	▪ **Little awareness and perceived impact** on crush-resistant formulation ▪ **OxyContin seen as "fallen Hero"-** powerful drug, dampened by concerns around diversion, abuse and regulatory restrictions	ONU/Oxy Co-positioning	PJ Quinn	November, 2012
	▪ **3 in 5 physicians aware** of reformulated OxyContin	OxyContin new formulation awareness	Synovate healthcare	October, 2010

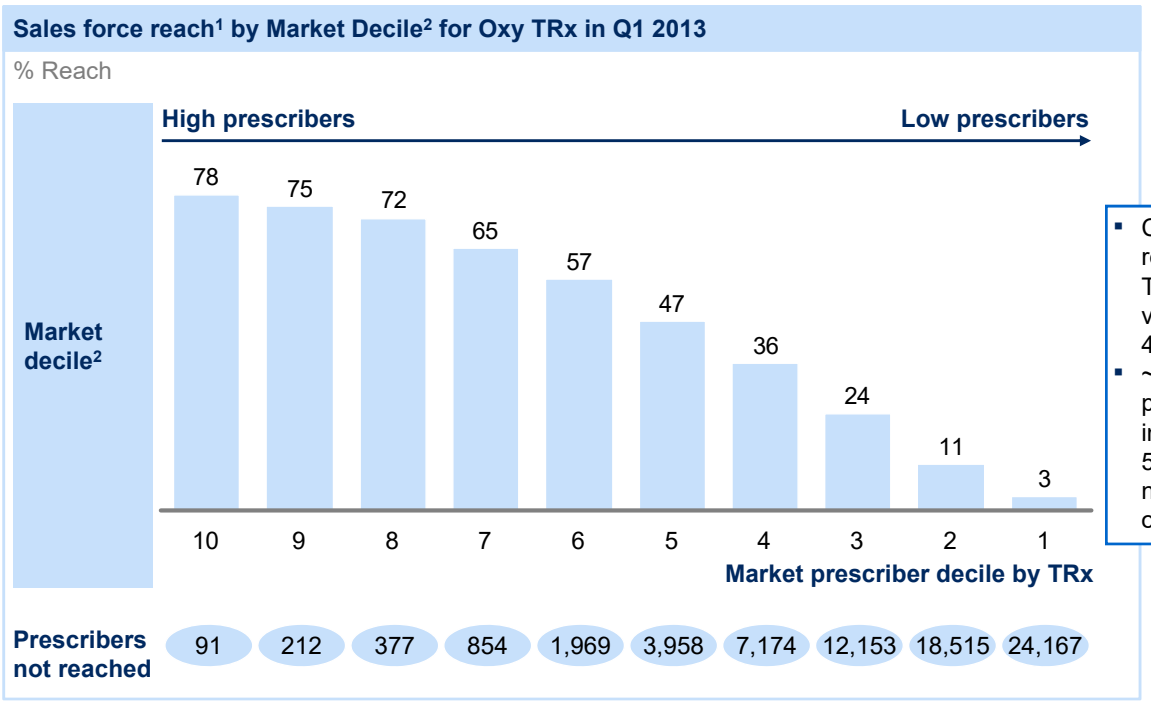
No new market research on OxyContin (e.g. abuse deterrence awareness) has been conducted since the April 2013 FDA ruling

Contents

Findings on segmentation and targeting

- Analysis of sales force reach suggests **calls are insufficiently focused on high deciles**
  - Cumulative reach is 47% by market basket volume and 53% by OxyContin volume
  - While reach is >70% for market decile 10, 9, and 8, it declines sharply for decile 7 (65% reach), decile 6 (57% reach), and decile 5 (47% reach)
  - ~7500 prescribers in market decile 5-10 were not called on in Q1 2013
- Sales force reach are also **insufficiently focused on NBRx**
  - Sales force reaches less than 40% of OxyContin NBRx by volume (44% if orthopedic surgeons are excluded)
  - ~9600 NBRx decile 5-10 prescribers were not called on in Q1 2013
- Initial analysis shows no difference in OxyContin market share among identified corporatized providers
- **Prescribers who do not receive calls account for 75% of the overall OxyContin decline**
- **OxyContin is still promotionally sensitive**
  - Vacancy and retrospective call responsiveness analyses show that OxyContin is promotionally sensitive across deciles
  - Promotional sensitivity is further evidenced by physician-level 'natural pilots'
- **At the territory level, OxyContin performance is largely driven by external market attractiveness factors including ERO growth, Gx penetration, household income, and managed care access**

There are ~ 7,500 Decile 5-10 prescribers that the sales force is not reaching



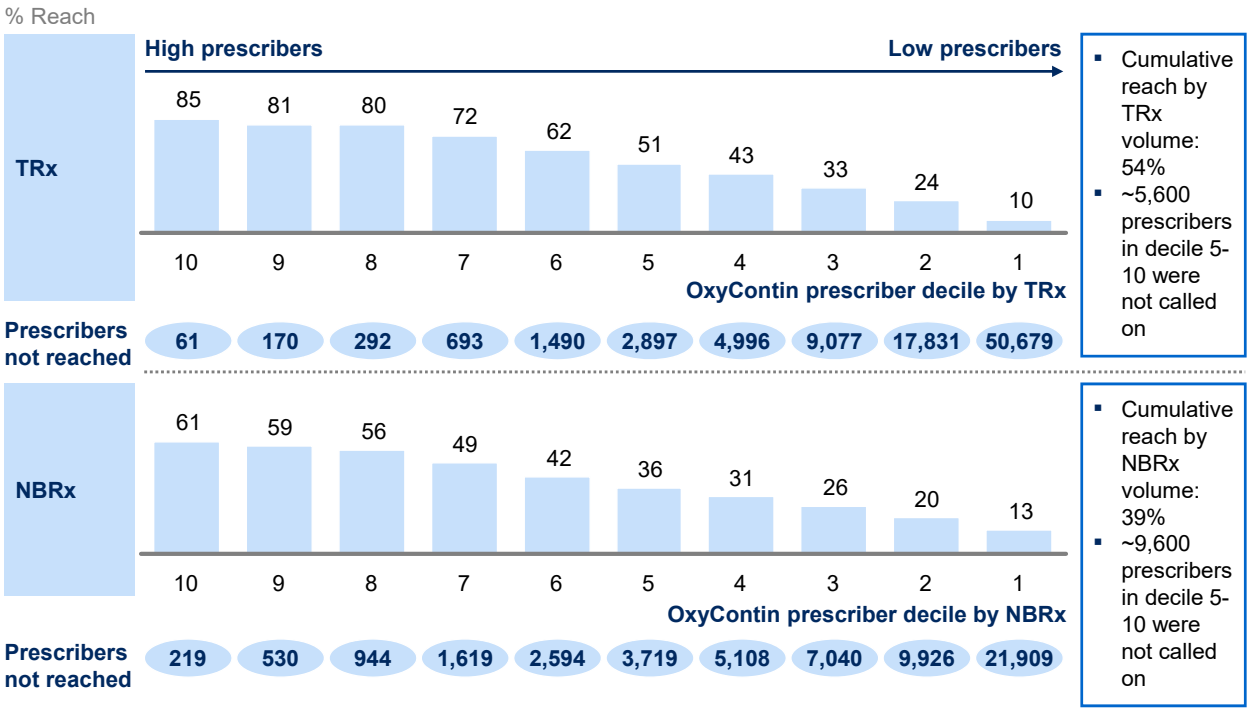
1 Reach defined as at least 1 P1 or P2 in Q1 2013

2 Market decile based on ER-IR market basket as defined by ZS Assosciates

SOURCE: IMS; Purdue Sales and Marketing; Team analysis

Sales force reach is lower by NBRx decile compared to reach by Oxy decile

Sales force reach by Oxy Prescriber Decile for TRx and NBRx in Q1 2013



- Cumulative reach by TRx volume: 54%
- ~5,600 prescribers in decile 5-10 were not called on

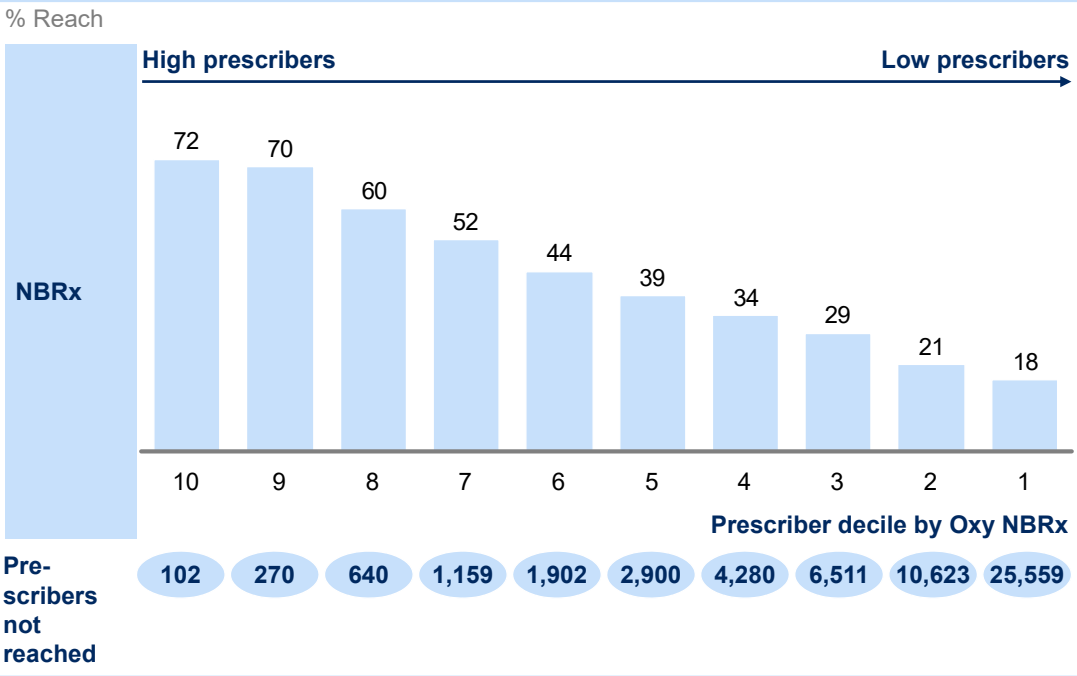
- Cumulative reach by NBRx volume: 39%
- ~9,600 prescribers in decile 5-10 were not called on

1 Reach defined as at least 1 P1 or P2 in Q1 2013

SOURCE: IMS; Purdue Sales and Marketing; Team analysis

Reach by NBRx is higher when orthopedic surgeons are excluded from the sample, as they tend to be higher NBRx and reach is lower

Sales force reach[1] by Oxy Prescriber Decile for NBRx (excluding orthopedic surgeons[2]) in Q1 2013

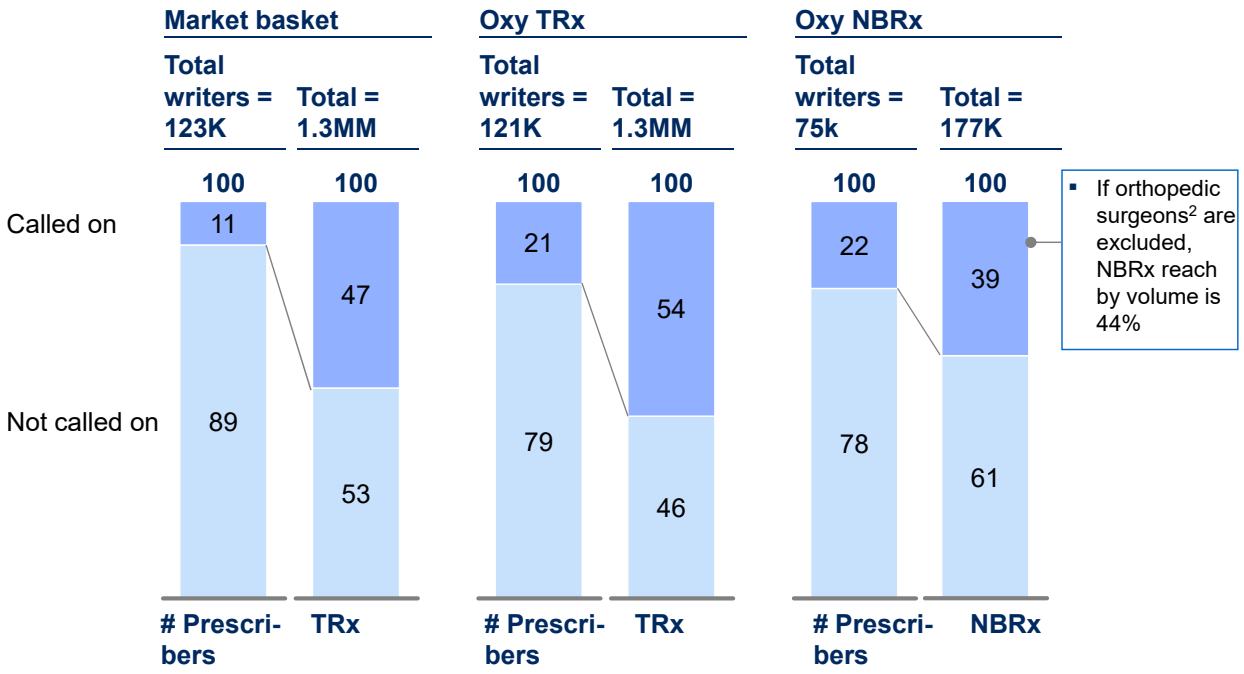


1 Reach defined as at least 1 P1 or P2 in Q1 2013
2 Many orthopedic surgeons are high NBRx writers due to the acute nature of the pain they treat

SOURCE: IMS; Purdue Sales and Marketing; Team analysis

The sales force reach of OxyContin NBRx is ~40% by volume

OxyContin sales force reach in Q1 2013 (including P1 or P2 calls)



1 For 3-month period ending in March 2013; Reach defined as any physician who received at least one call (P1 or P2) in the time period specified
2 Many orthopedic surgeons are high NBRx writers, due to the acute nature of the pain they treat

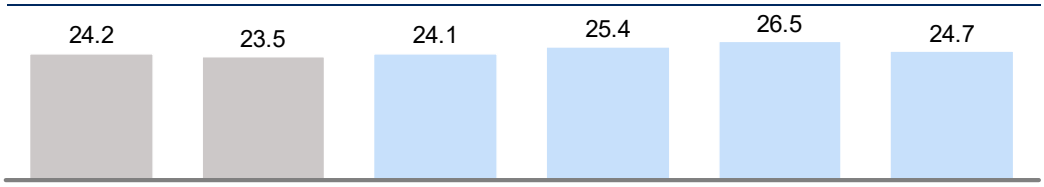
SOURCE: IMS; Purdue Sales and Marketing; team analysis

Initial analysis shows no difference in OxyContin performance among identified corporatized providers

Baseline
Focused on corporatized providers

- 18% of all OxyContin scripts written by prescribers identified as affiliated
- 3% of all OxyContin scripts written by prescribers identified as Top 300 affiliate

2012 OxyContin share of ERO scripts
%



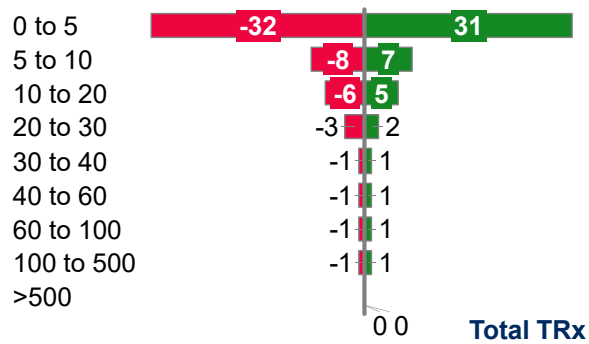
Scope of prescribers considered	Total	On call list	Identified as affiliated	Identified as Top 300	Identified as Top 300 - expanded[1]	Zipcodes w/ heavy corp. provider presence[2]
Total 2012 ERO script (mns)	22.2	12.6	3.6	0.73	0.98	4.6
Total OxyContin script (mns)	5.4	3.0	0.88	0.19	0.26	1.1
Total prescribers	332341	50041	14347	3906	12140	-

1 Matching on addresses, we identified additional providers who may also be affiliated with Top 300 corporatized providers but who were not identified as such by the sales force.
2 Using McKinsey database of largest corporatized providers, which focuses on Greater Boston, Greater Los Angeles, Greater Pittsburgh, Pacific Northwest, and Greater Dallas

SOURCE: Affiliation data collected by Purdue sales force; McKinsey database of largest corporatized providers

Overall, TRx increased for 47% of prescribers

Prescribers by change in TRx from 2011 to 2012
% prescribers

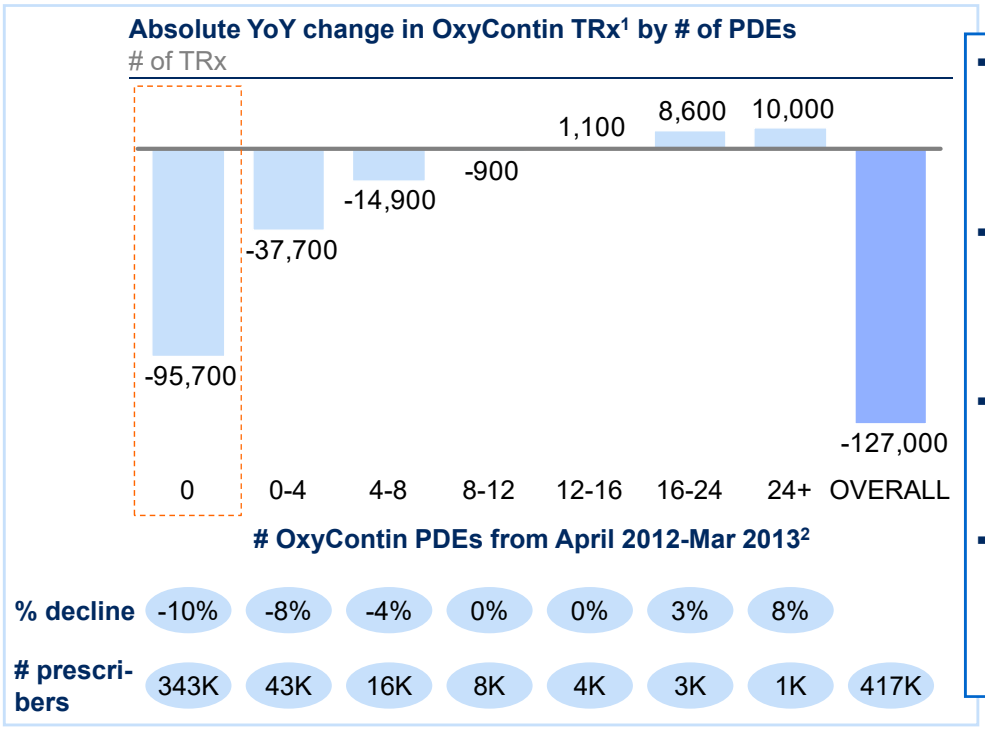


Change in TRx # TRx/MD	TRx impact for declining (Thousand)	TRx impact for increasing (Thousand)
0 to 5	214	204
5 to 10	158	138
10 to 20	252	202
20 to 30	169	126
30 to 40	115	86
40 to 60	148	106
60 to 100	146	123
100 to 500	468	429
>500	88	121
Total TRx Thousand	**~1,800**	**~1,500**

- 61% of declining prescribers fall into the 0 to -5 TRx decline category, and less than 5% fall into categories 40 to >500 decline
- 65% of prescribers with increasing TRx fall into the 0 to 5 TRx category
- TRx impact per prescriber is highest for highest Trx growth and decline categories

SOURCE: IMS

Prescribers who did not receive calls account for ~75% of OxyContin decline



- **75% of the decline of OxyContin is concentrated in prescribers that Purdue does not call**
- The impact of calls is particularly strong in high-deciles; **2/3rds of 96K decline is in deciles 5-10**
- Analysis also shows call sensitivity throughout range of PDEs
- This suggests that increased call activity may have a substantial impact on slowing the decline of OxyContin

1 TRx change measured in absolute terms between 6 months ending in March 2012 and 6 months ending in March 2013
2 PDE (primary detail equivalent) calculated using 1.0 weight for a P1 and 0.5 for a P2

SOURCE: IMS

Prescribers who do not receive calls account for 75% of the overall OxyContin decline

Absolute change in OxyContin TRx[1] by # of PDEs and market decile

# of Rx

# of PDEs April 2012 – March 2013

Market Decile	0	0.5 to 4	4 to 8	8 to 12	12 to 16	16 to 24	>24	Totals
10	-5,345	-6,794	-7,383	-1,565	-3,976	-3,974	5,139	**-23,899**
9	-5,531	-9,632	-2,496	-1,501	-1,181	644	1,345	**-18,352**
8	-11,513	-5,071	-5,948	-471	-637	2,698	1,486	**-19,455**
7	-9,427	-7,135	-3,647	-1,879	1,492	1,729	940	**-17,926**
6	-11,700	-6,273	-78	-911	286	1,396	796	**-16,483**
5	-19,647	-8,896	-4,929	-1,359	187	1,375	-49	**-33,318**
4	-23,657	-6,857	-2,389	-197	721	1,047	55	**-31,278**
3	-29,980	-5,098	-45	1,632	1,027	733	208	**-31,523**
2	-20,812	4,505	2,817	991	1,252	840	14	**-10,394**
1	35,986	11,080	6,877	2,776	972	1,475	335	**59,501**
All	**-94,699**	**-36,674**	**-14,871**	**-890**	**1,141**	**8,567**	**10,397**	-127,028

1 TRx change measured in absolute terms between 6 months ending in March 2012 and 6 months ending in March 2013

SOURCE: IMS; Purdue sales

PDEs have a significant impact on TRx growth, controlling for decile

% Change in OxyContin TRx[1] by # of PDEs and market decile

Percent (# of prescribers)

# of PDEs April 2012 – March 2013

Market Decile	0	0.5 to 4	4 to 8	8 to 12	12 to 16	16 to 24	>24	Totals
10	-30% (41)	-41 (49)	-22% (76)	-4% (81)	-9% (98)	-6% (134)	10% (92)	**-9% (571)**
9	-26% (110)	-37% (126)	-7% (172)	-4% (190)	-3% (178)	1% (245)	4% (129)	**-7% (1150)**
8	-37% (240)	-16% (268)	-14% (337)	-1% (406)	-1% (314)	6% (282)	6% (141)	**-7% (1,988)**
7	-22% (654)	-17% (639)	-7% (711)	-4% (667)	3% (489)	5% (372)	8% (122)	**-6% (3,654)**
6	-17% (1660)	-11% (1429)	0% (1302)	-2% (1067)	1% (646)	6% (383)	11% (128)	**-6% (6,615)**
5	-19% (3,954)	-13% (2,672)	-8% (2,137)	-3% (1,309)	1% (631)	9% (391)	-2% (76)	**-11% (11,170)**
4	-16% (8,677)	-9% (4,548)	-5% (2,797)	-1% (1,447)	5% (608)	16% (278)	4% (60)	**-10% (18,415)**
3	-16% (19,956)	-7% (7,177)	0% (3,161)	10% (1,338)	17% (472)	24% (229)	38% (33)	**-10% (32,366)**
2	-11% (53,222)	12% (9,903)	24% (2,815)	21% (903)	79% (313)	133% (107)	- (10)	**-4% (67,273)**
1	30% (244,773)	134% (15,226)	448% (2,275)	582% (576)	800% (159)	7504% (61)	- (11)	**46% (263,081)**
All	**-10% (343,248)**	**-8% (42,883)**	**-4% (15,956)**	**0% (8,068)**	**0% (3,935)**	**3% (2,498)**	**8% (805)**	**(406,283)**

1 TRx change measured in percent terms between 6 months ending in March 2013 and 6 months ending in March 2012

SOURCE: IMS; Purdue sales

For all deciles, increased calls are associated with higher OxyContin TRx growth – a sign of promotional sensitivity

Absolute change in OxyContin TRx[1] per prescriber by # of PDEs and market decile

# of Rx

Change in OxyContin TRx per prescriber

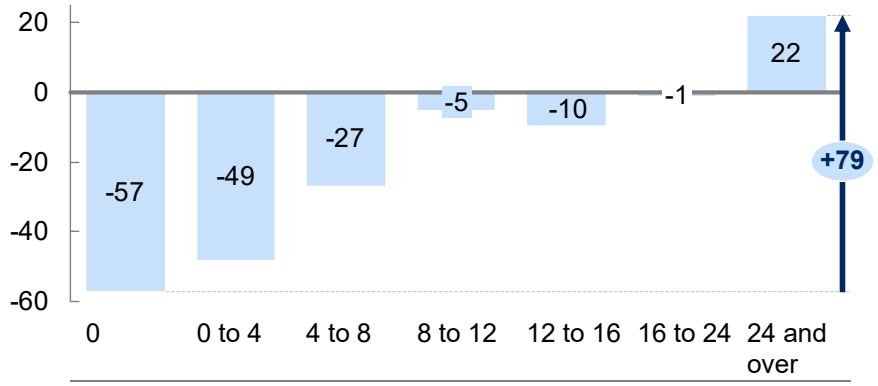
Market Decile	# of prescribers	0	0.5 to 4	4 to 8	8 to 12	12 to 16	16 to 24	>24	Totals
10	571	(130.4)	(138.7)	(97.1)	(19.3)	(40.6)	(29.7)	55.9	**(41.9)**
9	1,150	(50.3)	(76.4)	(14.5)	(7.9)	(6.6)	2.6	10.4	**(16.0)**
8	1,988	(48.0)	(18.9)	(17.6)	(1.2)	(2.0)	9.6	10.5	**(9.8)**
7	3,654	(14.4)	(11.2)	(5.1)	(2.8)	3.1	4.6	7.7	**(4.9)**
6	6,615	(7.0)	(4.4)	(0.1)	(0.9)	0.4	3.6	6.2	**(2.5)**
5	11,170	(5.0)	(3.3)	(2.3)	(1.0)	0.3	3.5	(0.6)	**(3.0)**
4	18,415	(2.7)	(1.5)	(0.9)	(0.1)	1.2	3.8	0.9	**(1.7)**
3	32,366	(1.5)	(0.7)	(0.0)	1.2	2.2	3.2	6.3	**(1.0)**
2	67,273	(0.4)	0.5	1.0	1.1	4.0	7.9	1.4	**(0.2)**
1	263,081	0.1	0.7	3.0	4.8	6.1	24.2	30.5	**0.2**
All	**406,283**	**(0.3)**	**(0.9)**	**(0.9)**	**(0.1)**	**0.3**	**3.5**	**13.0**	**(0.3)**

1 TRx change measured in absolute terms between 6 months ending in March 2012 and 6 months ending in March 2013

SOURCE: IMS; Purdue sales

Increased calls have a significant impact on OxyContin TRx – Market deciles 8 to 10

Growth in OxyContin TRx/prescriber[2] by # of PDEs received



	0	0 to 4	4 to 8	8 to 12	12 to 16	16 to 24	24 and over
# of Prescribers	391	443	585	677	590	661	362
% Change in TRx	-32%	-29%	-14%	-3%	-4%	0%	7%

Key insights

- There is significant call sensitivity of Oxy for high-decile physicians particularly through 12 calls/yr
- There are 362 high-value physicians to whom >24 calls were made per year – these increased substantially more than physicians

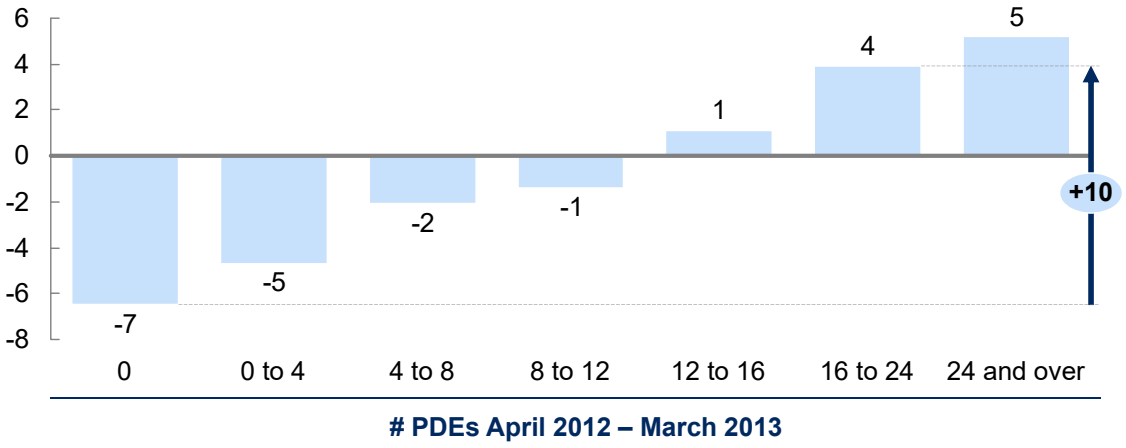
1 Market decile based on ER-IR market basket as defined by ZS Associates
2 TRx change measured in percent terms between 6 months ending in March 2013 and 6 months ending in March 2012

SOURCE: IMS; Purdue sales

Increased calls have a significant impact on OxyContin TRx – Market deciles 5 to 7

TRx/prescriber change[2] by # of PDEs

# of Rx



 # PDEs April 2012 – March 2013

	0	0 to 4	4 to 8	8 to 12	12 to 16	16 to 24	24 and over
# of Prescribers	6,268	4,740	4,150	3,043	1,766	1,146	326
% Change in TRx	-19.3%	-13.2%	-5.2%	-2.8%	1.9%	6.2%	7.7%

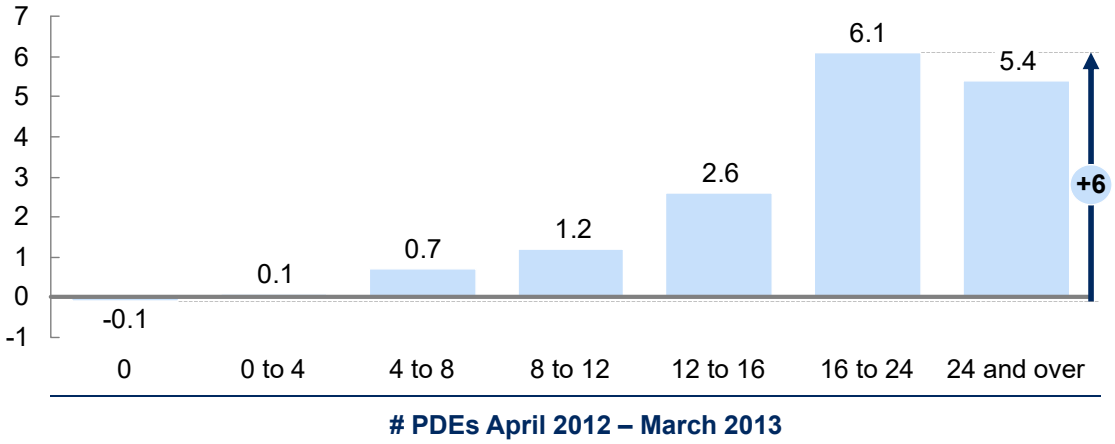
1 Market decile based on ER-IR market basket as defined by ZS Assosciates
2 TRx change measured in percent terms between 6 months ending in March 2013 and 6 months ending in March 2012

SOURCE: IMS; Purdue sales

Increased calls have a significant impact on OxyContin TRx – Market deciles 1 to 4

TRx/prescriber change[2] by # of PDEs

# of Rx



 # PDEs April 2012 – March 2013

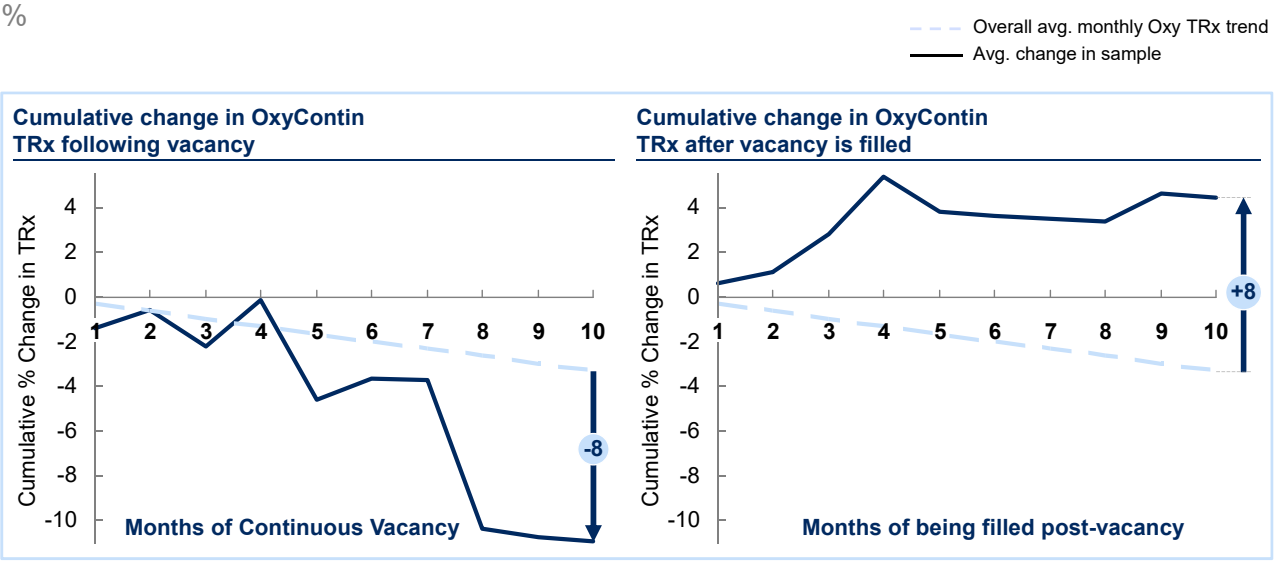
	0	0 to 4	4 to 8	8 to 12	12 to 16	16 to 24	24 and over
# of Prescribers	326,628	36,854	11,048	4,264	1,552	675	114
% Change in TRx	-5.9%	1.9%	7.5%	10.2%	18.4%	38.9%	29.6%

1 Market decile based on ER-IR market basket as defined by ZS Assosciates
2 TRx/prescriber change measured between 6 months ending in March 2013 and 6 months ending in March 2012

SOURCE: IMS; Purdue sales

Vacancy analysis suggests that OxyContin is still responsive to calls

%



- After 10 months of vacancy, Oxy TRx falls an average of 8% v. the overall trend; the effect is similar when zips are filled post- vacancy
- Given that the sales force calls on ~54% of OxyContin volume, this is **consistent with a ~15% impact on prescribers actually called**

1 % changes calculated using a weighted average of month TRx change for 8373 zip codes with >100 total TRx in a 28 month period (Jan 2011 to April 2013)

SOURCE: IMS; Purdue Sales Operations; team analysis

Calling on high decile physicians with appropriate frequency can have major impact on OxyContin TRx: physician "natural pilot"

True physician example

Specialty : **Anesthesiology**

Location : **Wareham, Massachusetts**

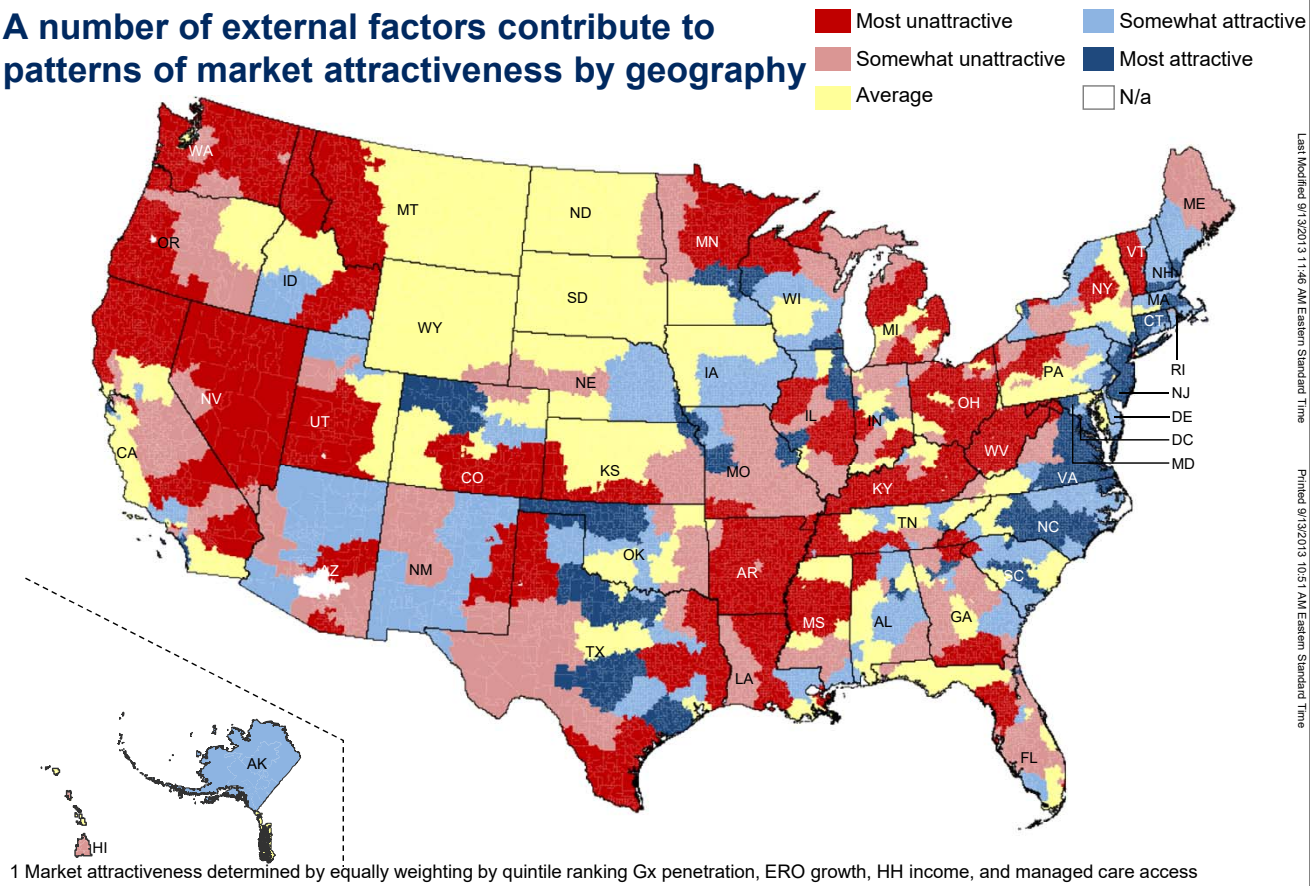
Market Decile : **8**

	12 months ending March 2012		12 months ending March 2013
Calls made on physician	**0 P1** **1 P2**	→	**18 P1** **1 P2**
OxyContin scripts written during 2nd half of year	**177**	→	**344**
OxyContin share of ERO Market	**26%**	→	**43%**

- This physician went from receiving 0 P1s to 18 P1s – this resulted in a 94% increase in TRx
- This is not an isolated case
  - **84 physicians** in deciles 7-10 went from receiving <4 PDEs to >14 PDEs
  - These physicians **increased** OxyContin TRx by **39%**, compared to a **17% decline** in physicians that continued to receive <4 PDEs

SOURCE: IMS; Purdue Sales Operations; team analysis

A number of external factors contribute to patterns of market attractiveness by geography



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1 Market attractiveness determined by equally weighting by quintile ranking Gx penetration, ERO growth, HH income, and managed care access
2 Analysis conducted on year ending in March 2012 v. year ending in March 2013

SOURCE: IMS; I-gallery data; team analysis

OxyContin performance is largely driven by external market attractiveness factors

 # Territories (examples)

Market Attractiveness[1]	OxyContin TRx Growth 2011-2012[2]	
	Above Average	Below Average
Most attractive	**74** New Haven, CT East Suffolk, NY Virginia Beach, VA	**31** Jersey City, NJ Lowell, MA North Chicago, IL
Somewhat attractive	**68** San Jose, CA Drexel Hill, PA Charleston, SC	**37** North Atlanta, GA Appleton, WI Dallas South, TX
Average	**61** Boston South, MA Mankato, MN Westminster, CO	**42** East Queens, NY Park City, UT Ann Arbor, MI
Somewhat unattractive	**36** Pittsburgh Central, PA Louisville East, KY Oklahoma City, OK	**72** Milwaukee South, WI East Baltimore, MD Seattle, WA
Most unattractive	**22** Detroit, MI Bakersfield, CA Las Vegas East, NV	**80** Tampa Metro, FL Dayton South, OH Bellingham, WA

1 Market attractiveness determined by equally weighting by quintile ranking Gx penetration, ERO growth, household income, and managed care access
2 Analysis conducted on year ending in March 2012 v. year ending in March 2013

SOURCE: IMS; I-gallery data; team analysis

Contents

Sales force focus and execution findings and implications

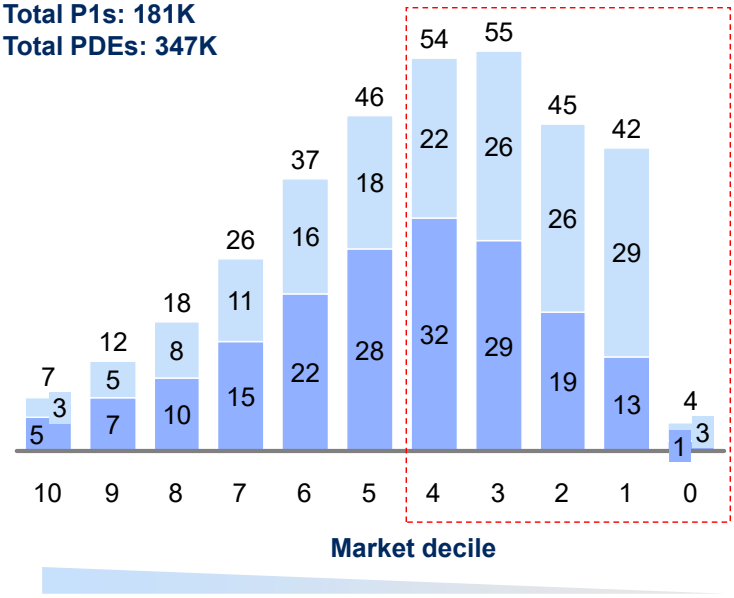
Key Findings	Implications/Opportunities
▪ 75% of total OxyContin decline is concentrated in prescribers than Purdue does not call on – 2/3 of these prescribers are in high market deciles (5-10) ▪ More than 50% of OxyContin primary calls are to low-decile (0-4) prescribers ▪ Decile 5-10 prescribers write on average 25 times more scripts per prescriber than decile 0-4, indicating that a call on decile 5-10 prescribers is likely higher-impact than a call on decile 0-4 ▪ Analysis shows call sensitivity throughout range of PDEs	▪ There is significant opportunity to slow the decline of OxyContin by **calling on more high-value physicians**
▪ Purdue sales force is making only 67% of OxyContin budget P1s (1H 2013) ▪ Purdue call volume is lower than industry benchmark ▪ P1 call attainment varies widely across territories	▪ Total OxyContin calls could be increased substantially if all reps **performed the budgeted # of OxyContin calls**
▪ 45% of OxyContin calls are off-list	▪ Any change in targeting will need to accompanied by a cultural change toward greater **adherence**
▪ Incentive comp structure for reps is misaligned with Purdue's economics	▪ Revision to incentive comp could better align reps to Purdue's economics
▪ The revenue upside from sales re-targeting and adherence could be well over $100M	▪ A comprehensive change program for the sales force can capture significant incremental value for Purdue

Currently, over 50% calls are made to low decile prescribers

Secondary details (PDE equiv)[1]
Primary details

Number of OxyContin calls by market decile[2], annualized based on Q1 2013
Number of Primary Detail Equivalents (PDEs); thousands

Total P1s: 181K
Total PDEs: 347K



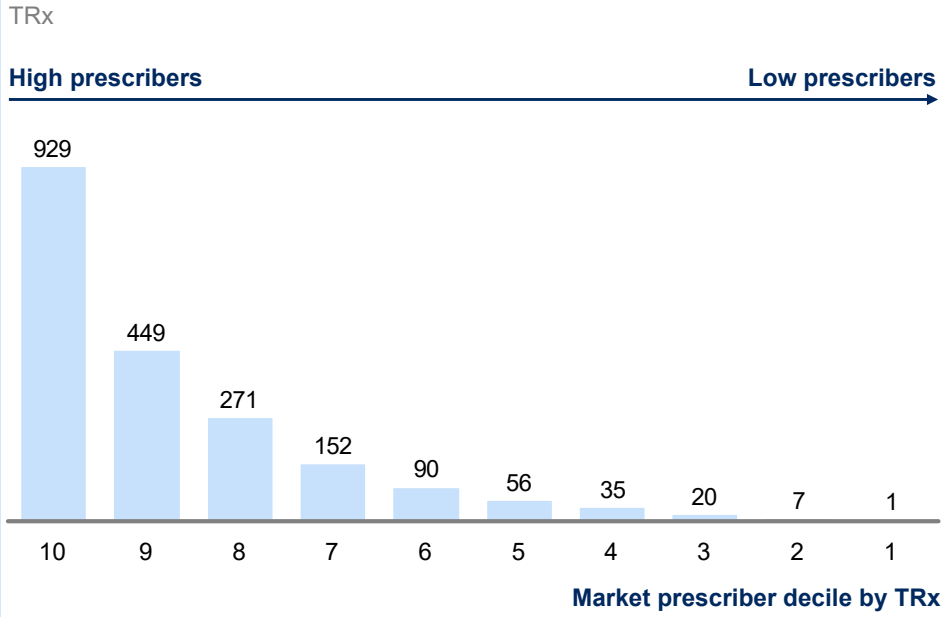
- 52% of OxyContin primary calls (95K) and 57% of primary detail equivalents are made to low-market decile prescribers (0-4)
- Given that there are ~14,000 uncalled physicians in deciles 5-10, there is significant opportunity to shift calls to higher potential prescribers
- Reasons for low-decile calls may include:
  - Lack of access to higher decile prescribers
  - Opportunism
  - KOLs
  - Geographic territory definition
  - Lack of rep call list adherence

1 PDEs calcuated as 1.0 x P1 calls + 0.5 x P2 calls
2 Market decile based on ER-IR market basket as defined by ZS Associates

SOURCE: IMS, Purdue call data

Decile 5-10 prescribers write on average 25 times more scripts per prescriber than decile 0-4

Average TRx per prescriber, annualized[1]



- Decile 5-10 prescribers write 134 scripts on average, while decile 0-4 prescribers write 5.4 scripts on average
- Thus, targeting decile 5-10 prescribers is likely to have a much greater impact than targeting lower value prescribers[1]

1 Based on H2 2012 data

SOURCE: IMS; Purdue Sales and Marketing; Team analysis

The sales force is currently performing only 67% of the budgeted primary calls on OxyContin

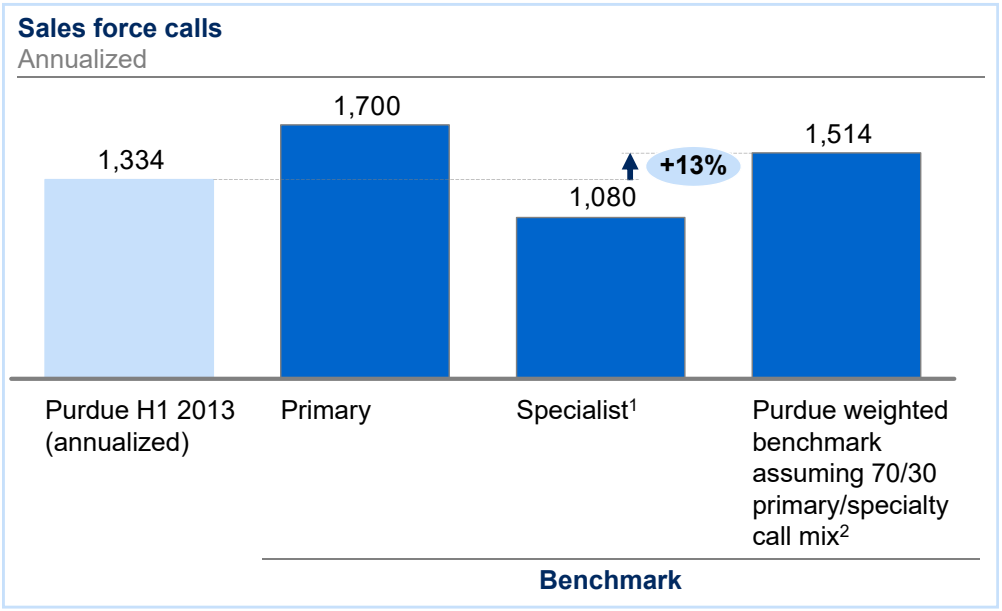
Average monthly OxyContin calls
Jan – June 2013

	P1	P2	Primary Detail Equivalents (PDEs)[1]
Per Rep			
▪ Target[2]	55	59	84
▪ Actual[3]	37	58	66
Field force total			
▪ Target	28,875	30,713	44,231
▪ Actual	19,600	30,400	34,800
▪ **% actual v. target**	**67%**	**99%**	**79%**

1 P1s plus 50% of P2s
2 Target based on published call plan (e.g. 2 calls/mo on Oxy Supercores and 1 call/mo on Cores)
3 Assuming 525 active sales reps

SOURCE: Purdue sales reports; Purdue internal interviews; team analysis

Purdue call volume is lower than benchmark



Making the incremental 180 calls per rep per year could result in incremental net revenue of ~$100 mn[3]

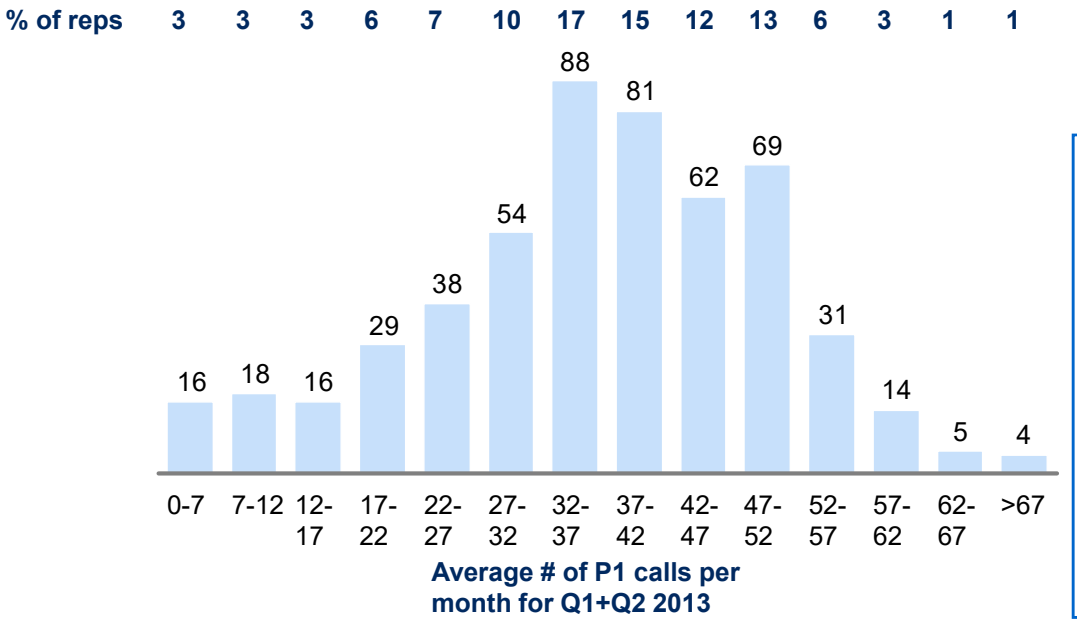
1 This is the lowest sales force call benchmark among specialties; this benchmark is for niche oncology drugs.
2 70% of Purdue OxyContin details are for GPs, which include GPs (52% of OxyContin details) and NRP (18% of OxyContin details). Specialty details include Phys Med & Rehab (7% of OxyContin details), Anesthesiology (7%), Rheum (2%), Orthopedic (2%), Neurology (2%), and other specialties that each make up 1% or less of OxyContin details.
3 Assuming 12 calls/ year/ prescriber, 39 incremental scripts per prescriber that is newly called upon (assuming Decile 5-7 sales responsiveness calculated by ZS Associates), 71 pills/ script, $6.2 average price per pill, with 25% rebate and other fees.

SOURCE: GP/Specialist mix from ZS report "M6 Alignment and Preliminary Placement Review v2.0", slide 74; McKinsey benchmarks; Purdue sales reports; Team analysis

There is a wide variance of actual P1 call attainment across territories

OxyContin P1 calls by territory for Q1+Q2 2013

Number of territories



- ~ 90% of reps do not attain the HQ productivity target of 55 P1s per month
- May include territories that were vacant for portion of time period

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SOURCE: IMS, Purdue call data

One possible way to attain benchmark ~1500 calls per year is to decrease training days by ~6 days and increase calls per day by 5%

One possible route to benchmark

Current call activity

Number of "on territory" days per year

Item		Days[1]
Number of working days		260
Holidays		-11.3
Vacation and other time off		-27.2
Trainings and meetings		-17.5
Other company-related time off of field		-4.3
Total days		199.7
Avg calls per day	x	7
Total calls per year		1398

Potential new allocation

Number of "on territory" days per year

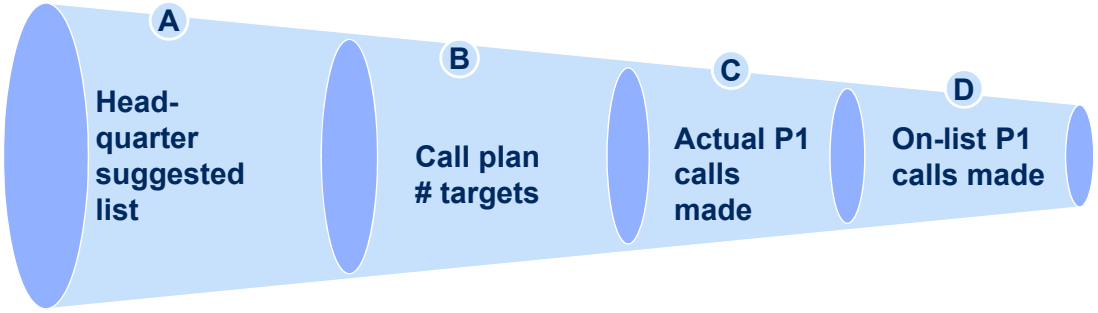
Item		Days[1]
Number of working days		260
Holidays		-11.3
Vacation and other time off		-27.2
Trainings and meetings		-11.5
Other company-related time off of field		-4.3
Total days		205.7
Avg calls per day	x	7.35
Total calls per year		1512

1 Purdue 2012 Actual data was used for this analysis

SOURCE: Purdue; team analysis

Adherence to the call list is only ~55%

Number of prescribers reached for OxyContin in Q1 2013



	A	B	C	D
# of Prescribers	42,000	26,000	18,000	10,000
Per rep	*80*	*50*	*34*	*19*

68%

38%

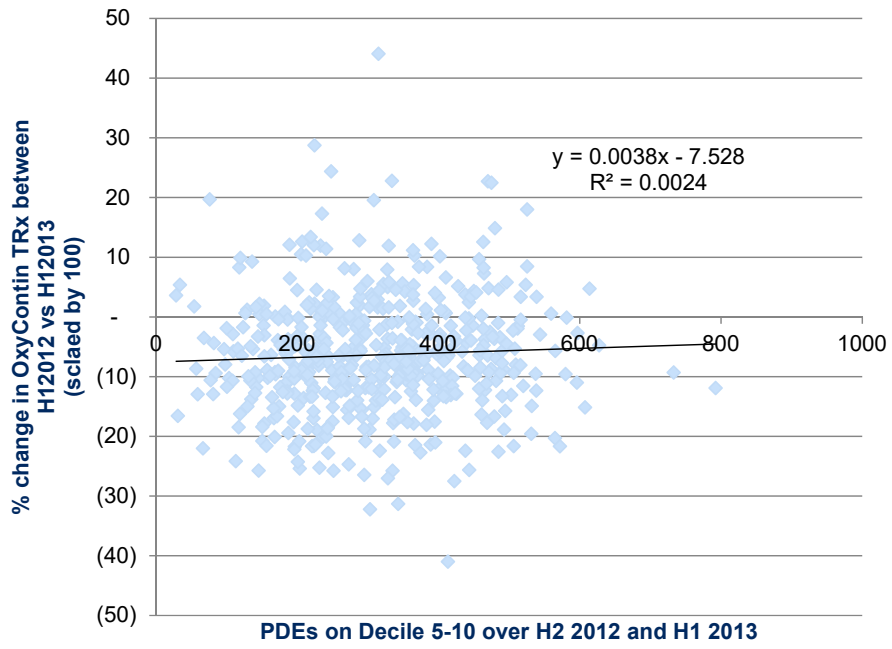
Of the P1 calls made…

- 8,000 out of the 18,000 calls actually made were off-list (44%)

SOURCE: ZS Associates report; Purdue call data; Team analysis

Calls on decile 5-10 prescribers positively correlate with OxyContin growth

PDEs on decile 5-10 vs % change in OxyContin TRx between H1 2012 and H1 2013
Territory level



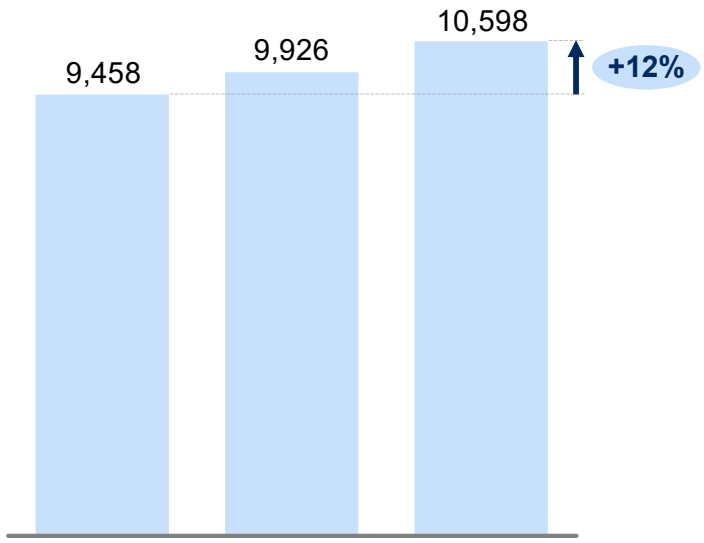
Implies that doing 175 more PDEs on deciles 5-10[1] is associated with 0.6 percentage point increase in OxyContin growth rate

1 Which is going from 25th to 75th percentile of PDEs on deciles 5-10

SOURCE: Purdue call data; IMS; Team analysis

Some variability exists across tenure for average prescriptions per rep

OxyContin average TRx per rep by tenure
2011/2012 average TRx



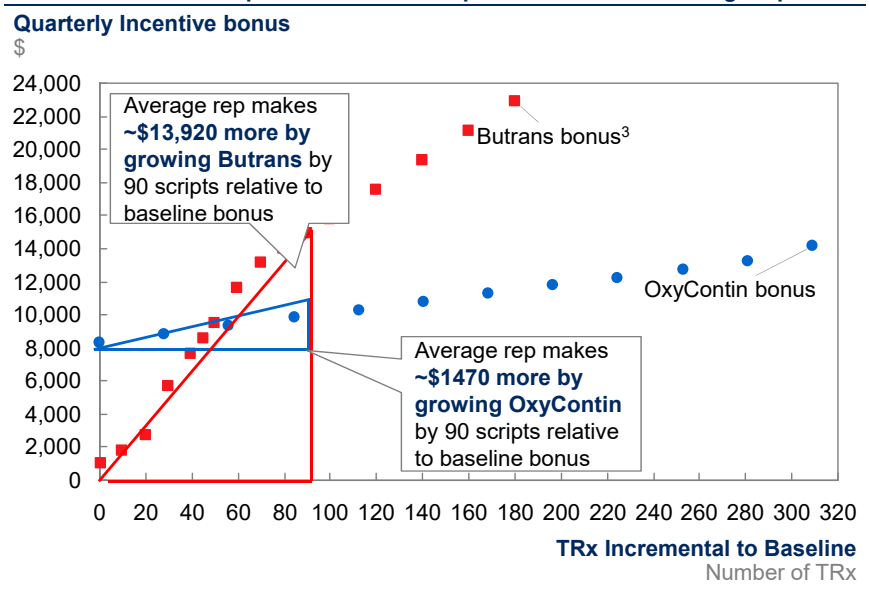
Tenure (years)	<3	3 to 5	>5
Number of reps	158	119	196

- Reps with >5 years tenure are in territories with average 12% higher TRx than reps <5 years (*not controlled for other factors)*

SOURCE: Purdue 2011-2013 OxyContin sales data, Zip to Terr file

Incentive comp structure is steeper for Butrans, making each incremental Butrans script more valuable to reps relative to OxyContin

Q3 2013 incentive compensation based on performance of an average rep[1]



- For average rep, **incremental scripts relative to baseline worth far more for Butrans than for OxyContin,** because slope of bonus curve is steeper for Butrans
- **Purdue, in contrast, makes 67% more if rep sells 90 OxyContin incremental scripts than 90 Butrans incremental scripts** ($30k vs $18k)[2]
- Additionally, incentive comp could incorporate call list adherence and rep productivity

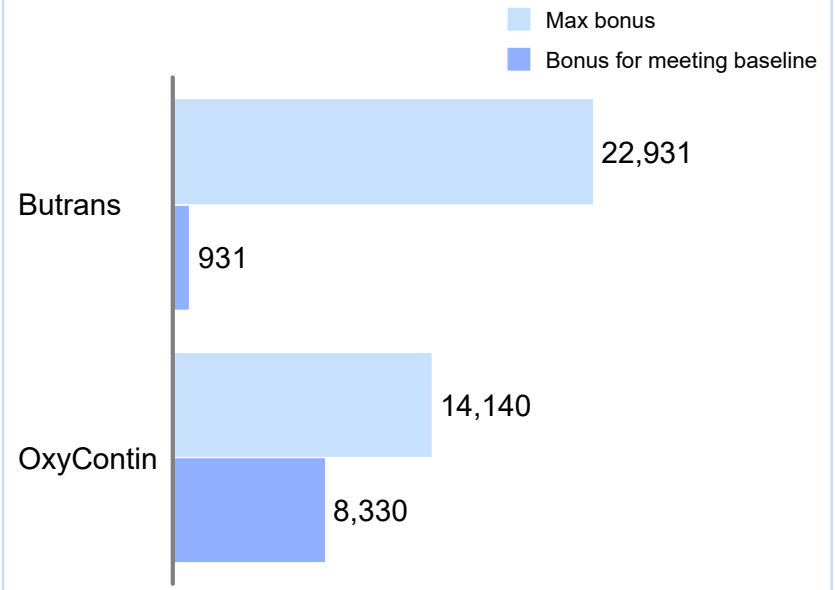
1 Uses Q3 2013 incentive plan. Assumes 232 Butrans scripts/ quarter for average rep, and 2809 OxyContin scripts/ quarter for average rep.
2 Assumes average $267 gross price/ Butrans script and $447 gross price/ OxyContin script. Lastly assume net revenue (net of rebates and fees) is ~75% of gross price.
3 Balanced portfolio bonus included in Butrans bonus calculation as is indexed to Butrans scripts

SOURCE: Purdue sales; Purdue Budget; team analysis

Max level of bonus for Butrans at a higher level than for OxyContin

Max and baseline bonus levels for Q32013[1], by Product

$



Max level of bonus for Butrans is 60% higher than for OxyContin

1 Uses Q3 2013 incentive plan. Assumes 232 Butrans scripts/ quarter for average rep, and 2809 OxyContin scripts/ quarter for average rep. Balanced portfolio bonus indexed to Butrans scripts

SOURCE: Purdue sales; Purdue Budget; team analysis

Reps who make more OxyContin P1s on high-decile prescribers generate more OxyContin growth in their territory

ACTUAL DATA

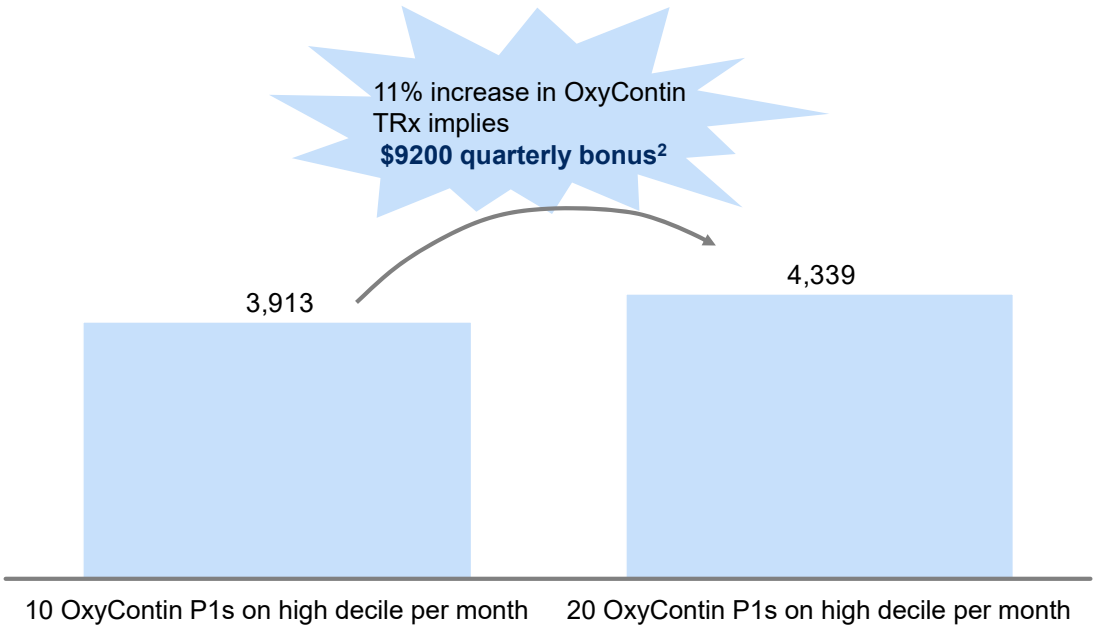
Relationship between TRx growth and P1s on high decile prescribers holds across territories

		Sales rep A	Sales rep B	
*Sales rep B **generated 7% more growth**…*	**% change in Oxy TRx, H1 2012 vs H1 2013**	0%	7.3%	+7300 bp
*by **making more Oxy P1s on high decile doctors**…*	**Oxy P1s on high decile MDs (5-10) per mo**	23	28	+22%
*despite operating in a **similar territory to Sales rep A***	**State**	TN	TN	
	# of high-decile docs in territory	70	56	

SOURCE: IMS; Purdue sales data

Going from 10 to 20 OxyContin P1s on high-decile prescribers generates 11% increase in OxyContin scripts1 – a $9200 quarterly bonus for avg rep

OxyContin TRx per year, on average



1 Based on regression accounting for the number of high-decile prescribers in the territory
2 Under current Q2 2013 incentive plan

SOURCE: IMS; Purdue sales data; Purdue Q2 2013 Rep incentive plan

Observations from rep ride-a-longs

Challenges

- Reps given guidance to only speak about **abuse-deterrence label once** with each physician (guidance "not to make it a selling point")
- Reps **struggling to engage prescribers in focused conversations about OxyContin**
- Reps **overwhelmed by amount of data available, and unable to use it effectively** for call planning and focusing conversations with prescribers
- Observation that rep still had **old version of OxyContin label** without latest section on abuse-deterrence
- Prescribers "not asking" to talk to **MSL**
- Belief that **pharmacies occasionally switching patients** w/o physician call-back
- **Corporatized provider** in area wouldn't write anything unless **"dirt cheap"** – physician view
- **Abuse was seen as a real issue** for each practice and pharmacy visited; the new label was of interest among prescribers and office staff
- **Pharmacy call-backs seen as an unsustainable 'drag'** on practice economics

Opportunities

- Reps **trying to apply techniques and topics introduced at trainings** (e.g., "challenger" approach)
- One rep attributed extensive dropping of **co-pay cards** at pharmacies to increasing sales in territory
- Talking about availability of **newer strengths** (e.g. 15mg) seen as effective
- One rep able to generate new writers through **persistent calls** each month
- Use of **dinner programs** seen as effective
- Talked about **managed care 'wins'** (e.g. MedCo part D)
- Spending time with **office manager discussing managed care coverage and processes** useful
- Can use pharmacy stocking report to **ensure pharmacies are carrying all dosages** of OxyContin
- Engaging interested prescribers on the importance of using **tamper resistance formulations** could increase comfort in using OxyContin

SOURCE: Rep ride-a-long field observations

The revenue upside from sales re-targeting and adherence could be up to $250M

PRELIMINARY

Based on ZS Response curves

Lever	# of MDs		PDEs per MD: Current (Avg.)		PDEs per MD: Suggested	Total PDE change	TRx impact per MD[3]	Total impact[4]: TRx	Total impact[4]: Revenue
Increase reach on decile 5-10 MDs not currently called	*All*	8,700							
	Reachable	~70%[1]							
	MDs reached	6,000	0	→	12-24[2]	103k	69	**411k**	**$177M**
Increase frequency on decile 5-10 MDs with suboptimal call frequency		16,400	10	→	12-24[2]	152k	24	**387k**	**$166M**
Reduce calls on decile 0-4 MDs		43,000	5	→	0	(110k)	(5)	**(210k)**	**($90M)**
Total impact						**145k**		**587k**	**$250M**

- **145k incremental PDEs** could be achieved by *either*
  - Increasing current Oxy P1 calls from ~37/rep/month to the 50/rep/month (90% of target) *plus* adding an incremental 65 reps *or*
  - Keeping productivity at current level an adding ~190 reps. Typically an additional 10-20% reps are required given inefficiencies in real-world geographic deployment, thus the deployed total could be as many as 210-230 reps

- Opportunity for up to **$250M impact** from:
  - Targeting high value prescribers
  - Performing budgeted target Oxy P1s
- Assumes **no change to Butrans** call plan

NOTE: Purdue call numbers based on blended and annualized Q1+Q2
1 15% discount on access, 10% discount on territory misalignment, 11% discount on other MDs not reachable (e.g. Region 0, IR only)
2 24 calls decile 6-10, 12 calls on decile 5; 3 Based on ZS call responsiveness curves by decile ; 4 On annualized basis

SOURCE: ZS Associates, IMS, Purdue call data, team analysis

65 to 190 additional reps will be needed to capture full opportunity depending on the increase in productivity of the sales force

	Description	Additional reps[1]	Estimated impact[2]	Rationale/ What you have to believe
1 Optimize and expand[3]	a Shift calls to high-value prescribers and increase rep productivity to 90% of target (e.g. 50 v. 55 calls/rep/mo); add reps to fill gap	65+	+$250M	▪ Desire to maximize potential opportunity ▪ Believe current field force can improve both productivity and adherence
	b Improve targeting, improve productivity by ~20%, and add reps to fill gap	115+		▪ Sales force has potential to moderately improve productivity
	c Shift calls to high value prescribers, no change in rep productivity, add reps to fill gap	190-230		▪ Believe call list adherence can be improved but challenging to improve productivity ▪ Desire quick impact
2 Optimize with current capacity	▪ Shift calls to high-value prescribers and increase rep productivity to 90% of target (e.g. 50 calls/rep/mo); do not add reps	None	+$220M	▪ Believe current field force can improve both productivity and adherence simultaneously

- Estimates do not include haircut for execution
- Additional reps required could be larger to:
  - Account for territory alignment
  - Increase field force size ahead of new product launch

1 Does not account for territory mis-alignment
2 Pro-forma relative to 1H 2013 performance, annualized
3 All scenarios assume 24 calls per year on deciles 6-10, 12 calls on Decile 5

SOURCE: IMS; Purdue call data; ZS Associates; McKinsey analysis

Contents

Findings on pharmacy and wholesale access

PRELIMINARY

- **A number of issues at the pharmacy and wholesale level are significantly impacting patient access:**
  - **Pharmacists are increasingly turning away opioid patients, especially at chain pharmacies**
  - Major pharmacies have implemented **stringent guidelines on opioid dispensing,** including pill count limits and requirements that patient must have filled same script at same pharmacy previously
  - **Walgreen's has eliminated incentives for pharmacists to dispense controlled substances** as part of its DEA settlement
  - **Pharmacists increasingly calling back physicians**, creating additional work and hassle for physicians
  - **Distributors are keeping a tight hold on supply of all controlled substances**, with pharmacies unable to order more than historical levels without risking being cut off
  - **There are reports of wholesalers cutting off pharmacies altogether**
- **Using available data, we have evaluated the extent of the access issue**
  - Patient calls to the **Medical Service line on access issues** have been increasing – though this represents only a fraction of the potential impact
  - Analysis of patient survey data collected by the Pain Care Forum shows **direct evidence of patients having difficulty filling opioid prescriptions**
  - Share of redeemed OxyContin savings cards **fell sharply for CVS in Q3 2012 and for Walgreens in Q2 2013**
  - **Walgreen's purchasing has been declining at a rate far faster than other pharmacies, with an acceleration in the March-June 2013 time period after the Good Faith Dispensing policy was rolled out in full**
    - Walgreen's estimated monthly retail purchasing of OxyContin declined ~2% (in units) from Q1 2013 to Q2 2013 compared to a 1% decrease over the same period for all other pharmacies
    - In addition**, fewer Walgreens stores are purchasing high-dosage** (60mg, 80mg) OxyContin and overall purchases of high-strength OxyContin is falling faster as Walgreen's relative to other pharmacies
  - There is little evidence that mail order is increasing to offset retail pharmacy access issues

Access issues at pharmacy and distributor level

PRELIMINARY

Low impact High impact

		Actions impacting access	Potential size of impact
1	Pharma-cies	a Turn away patients who raise 'flags', which may include: – Living far from pharmacy, or prescription was written far from the pharmacy – Being new patients – Having a prescription for >120 units	
		b Call back physicians to verify prescription and to discuss treatment plan	
		c Modify Rx to fewer tabs (must call back physician)	
		d Stock out of opioids (either because limited deliveries imposed by distributors or HQ)	
		e Choose not to carry opioids at all	
2	Whole-salers	a DEA actions have led to several wholesale distribution facilities being barred from shipment of class 2 drugs for periods of time	
		b Halt C2 shipments to pharmacies that order 'too much', as measured by dosing units and molecule type (compared to historical purchase levels and purchase of non-controlled substances)	
		c Limit volume of C2 shipments to pharmacies (e.g., only allow orders up to historical purchase levels +10%)	

SOURCE: Purdue interviews; Pharmacist interviews

Guidelines established by major pharmacy chains and increased work associated with filling opioid prescriptions have restricted patient access

Pharmacy chains are implementing guidelines for which patients can fill opioid prescriptions, increasing pharmacists' risk of filling opioid prescriptions…

Common mandatory requirements

- Government ID
- No previous failed attempt to fill the prescription at another pharmacy belonging to same chain
- Clear PDMP check, in states where available

Additional flags

- Has not previously filled a prescription for the same medicine and dosage at same pharmacy
- Quantity is 120 units or more
- Patient on medication for 6 months or more
- Lives far from the pharmacy
- Prescription not filled on time
- Paid through cash/ credit card rather than insurance

… moreover, pharmacists report increased work and hassle associated with filling opioid prescriptions

- "We kind of discourage [the opioid business]… **it's more headaches than it's worth** for the low profits [and] if you give one patient one prescription [for an opioid], they bring their friends"– *Clinical coordinator at Publix (FL)*
- "Stress load is high- they aren't insuring techs [and] it used to take 10-15 mins to fill a prescription, now it takes a lot longer…Pharmacy also not providing enough support to fill these prescriptions… **80% of the time, they just refuse patients**." – *Clinical coordinator at Publix (FL)*
- "With budget cuts and staffing cuts – we don't have time to handle everything… **it's easier to turn away patients… my personal turn away rate for opioids is about 5%**" – *Former Pharmacy Manager at Walgreens (KY)*

SOURCE: Purdue; Pharmacy expert interviews

Walgreens has eliminated pharmacists' incentives to fill opioid prescriptions as part of its DEA settlement

Settlement and Memorandum of Agreement
Addendum: Prospective Compliance
Section 6

"Beginning in 2014, Walgreens will **exclude any accounting for controlled substance prescriptions dispensed by a particular pharmacy from bonus computations** for pharmacists and pharmacy technicians at that pharmacy"

Possible that this has already been implemented, given other elements of the settlement (e.g., GFD) appears to have been implemented before the settlement was finalized and made public

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SOURCE: DEA website (http://www.justice.gov/dea/divisions/mia/2013/mia061113_attach.pdf)

Pharmacies are calling back physicians to verify prescription and to discuss treatment plan

PRELIMINARY

Pharmacists are calling back physicians more frequently to verify and scrutinize prescriptions…

"It used to be that prescriber decided what drugs patients get, now pharmacists are now questioning the decision… for example, we had a case today where the patient was on IR, and we called the doctor back to suggest he change the prescription to 80/20 ER/IR"
– Former senior pharmacy director at CVS (FL)

"We are now asking doctors to modify prescriptions… for example, if we think the patient isn't opioid tolerant already, we will call the doctor."
– Former Walgreens Pharmacy Manager (KY)

"Pharmacist should look for different flags: In a certain market area? IR and ER? Days supplied? Proximity of the patient to the pharmacy and prescriber? Does the prescription look altered? Is this a valid DEA number? Is this a valid prescriber? … Then he calls the prescriber to validate for every TRx (requirement in the last year or two)"
- Former senior pharmacy director at CVS (FL)

… which leads to increased work and irritation for the physician, potentially decreasing OxyContin prescriptions

"Patients went to many pharmacies [in Manhattan] and most pharmacies don't dispense OxyContin"
– Physician specializing in pain control

Potential for negative feedback loop

"The patient population is annoying, the documentation is annoying. A lot of my colleagues decide to stop doing opioid prescription later in their career (because they are tired of the hassle)"
- Anesthesiologist and Pain Management Physician at major hospital

"PCPS are increasing referrals to specialists, part because of the big hassle around drug testing, pain contracts, and patient monitoring"
– Anesthesiologist and Head/Neck surgeon

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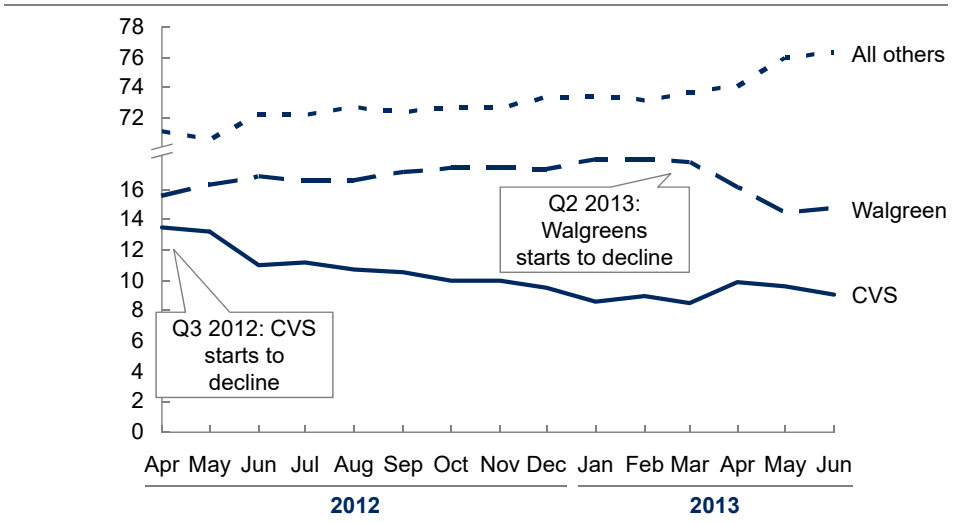
SOURCE: Pharmacist expert interviews during week of 7/15/2013; Prescriber interviews during June and July 2013

Share of savings cards redeemed started to decline in Q3 2012 for CVS and Q2 2013 for Walgreens

PRELIMINARY - IN VALIDATION

Share of redeemed OxyContin savings cards



Total number of savings cards redeemed 000s

Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
13	13	12	12	12	10	11	11	10	11	10	10	13	13	12

- CVS' share of redeemed savings cards starts declining in Q3 2012, coinciding with its national rollout of dispensing policy for controlled substances
- Walgreens' share of redeemed savings cards starts to decline in Q2 2013, coinciding with the national rollout of GFD

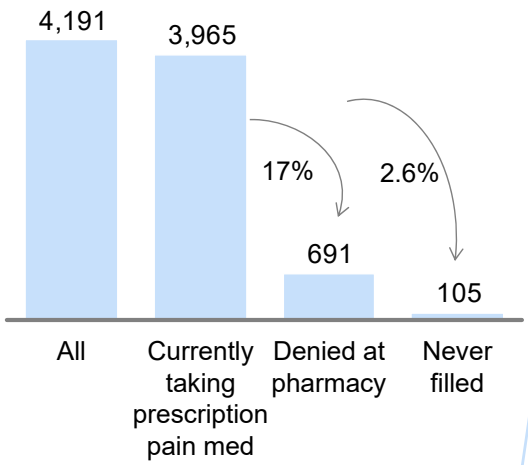
SOURCE: Purdue savings cards data

Analysis of patient data collected by the Pain Care Forum shows direct evidence of patients having difficulty filling opioid prescriptions

PRELIMINARY

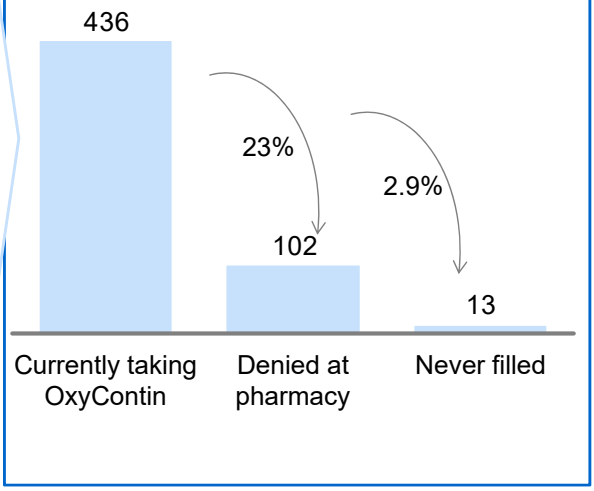
Among respondents, 95% are currently taking prescription pain meds and of those, **17% report having been denied filling a prescription**…

Number of respondents



…OxyContin patients, making up 10% of prescription drug patients in the survey, report **denial rates of 23%**

Number of respondents

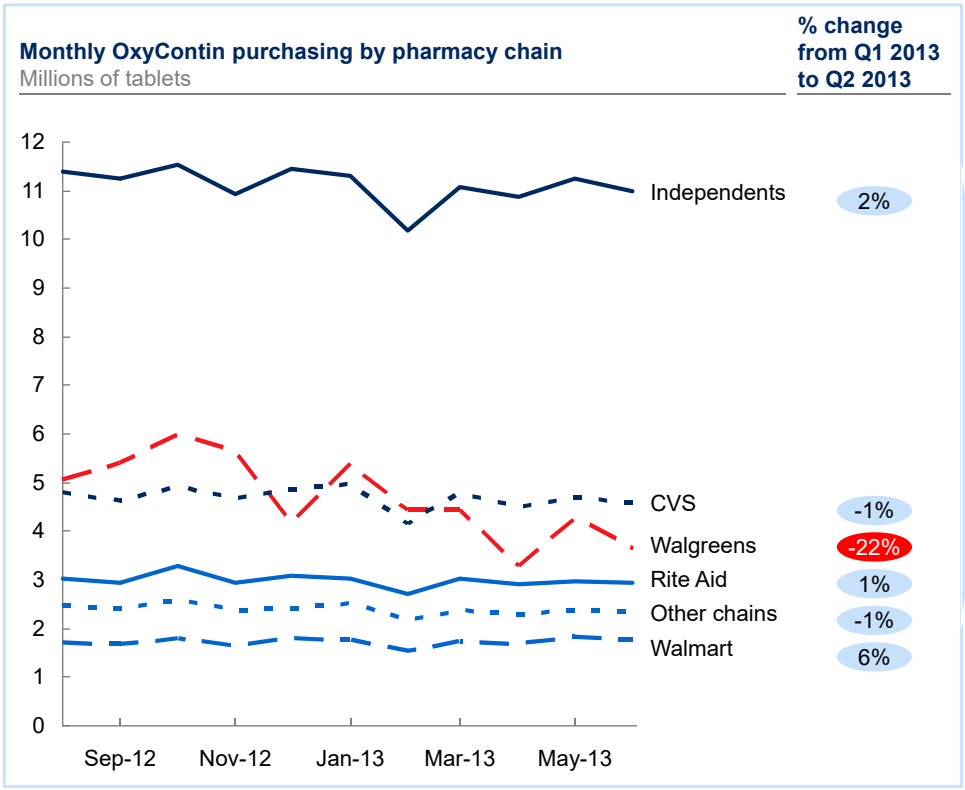


1 E.g., only including those who identified themselves as currently taking prescription pain medication

Note: Survey respondents were found by sending survey link to email list of National Fibromyalgia & Chronic Pain Association and other organizations; also posted via social media. Responses analyzed here were collected between 6/22/2013 – 8/9/2013, but survey collection still ongoing at the time of analysis. 40 states are represented in the survey

Source: Pain Care forum survey data

Walgreens purchasing of OxyContin has fallen more relative to purchasing by other chains and independent pharmacies



- Walgreens purchasing declined by 22% between Q1 and Q2 2013 (time of GFD implementation[1]), far outpacing the overall market decline of 3% over the same time period
- ~70% of the decline in OxyContin tablets over the Mar- Jun 2013 time period is attributable to Walgreens

Last Modified 9/13/2013

1 Good Faith Dispensing policy, elements of which are described in the previous slides in this section

SOURCE: Market Visibility; OMS

The number of Walgreens pharmacies purchasing high-dosage OxyContin has fallen significantly…

Number of WAG stores with any purchase of OxyContin, by dosage
# of stores

	Oct – Dec 2012	Apr – Jun 2013	Change	% Change
10 mg	4944	4331	-613	-12.4%
20 mg	5646	4993	-653	-11.6%
30 mg	3666	3044	-622	-17.0%
40 mg	4988	4299	-689	-13.8%
60 mg	3046	2399	-647	-21.2%
80 mg	3865	3190	-675	-17.5%
Any dosage	6943	6661	-282	-4.1%

- Number of stores purchasing have **fallen the most between Q4 2012 and Q2 2013 for the high dosages**

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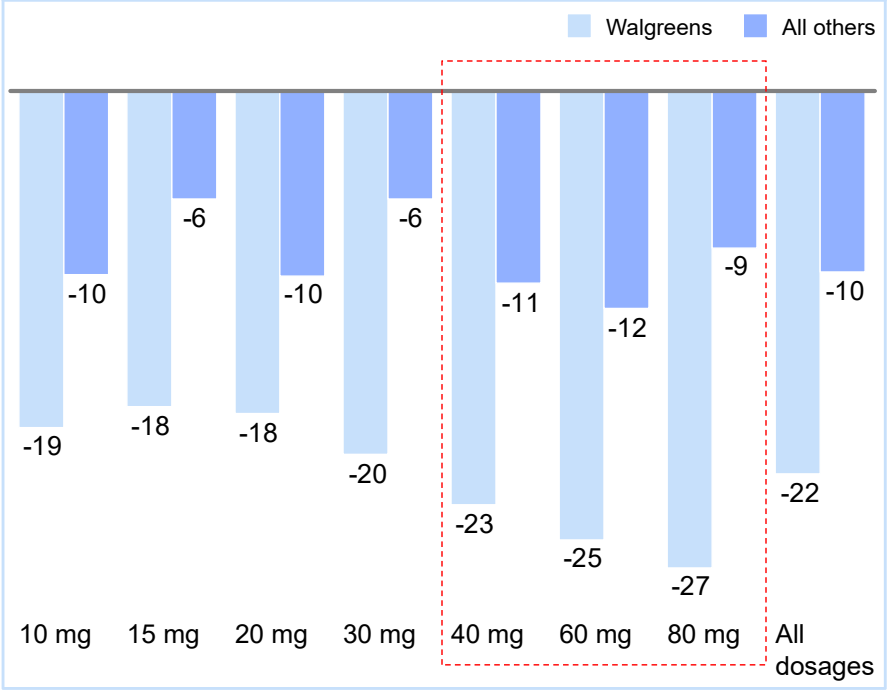
SOURCE: OMS

…and Walgreen's purchasing declined much more steeply for high-dosage OxyContin

Change in bottles purchased by Walgreens and all others, by dosage
% change between Q1 2013 and Q2 2013



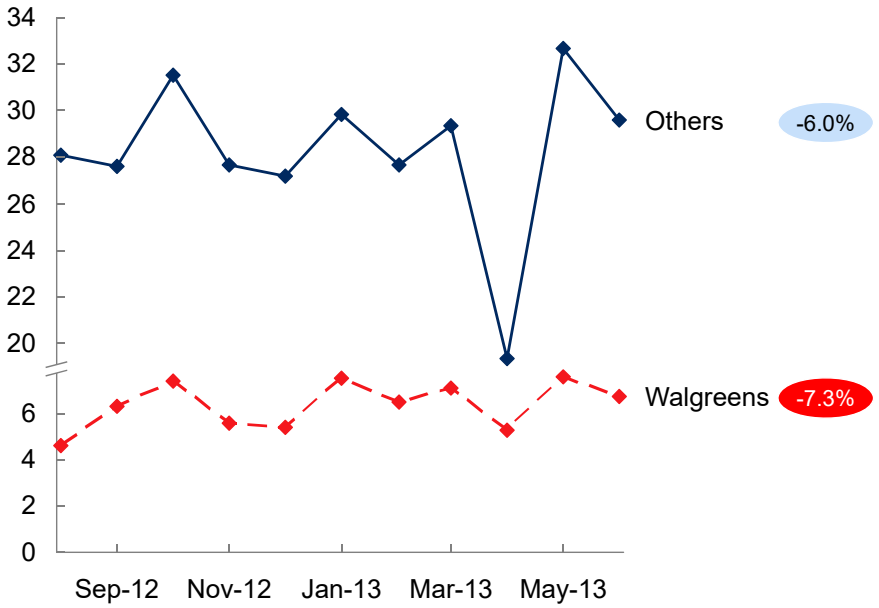
- 40, 60 and 80mg units declined ~25% faster than 10mg units
- Overall market tended to see faster declines in high-dosage units, but Walgreens showed a far faster decline in high dosage units

SOURCE: OMS

Walgreens' purchasing of Butrans also declined more compared other pharmacies, but not to same extent as OxyContin

Butrans Pharmacy Purchases, Walgreens vs. others
Thousands of Packages

% change from Q12013 to Q22013



- Walgreens' purchasing of Butrans has also declined more between Q1 and Q2 2013 compared to other pharmacies

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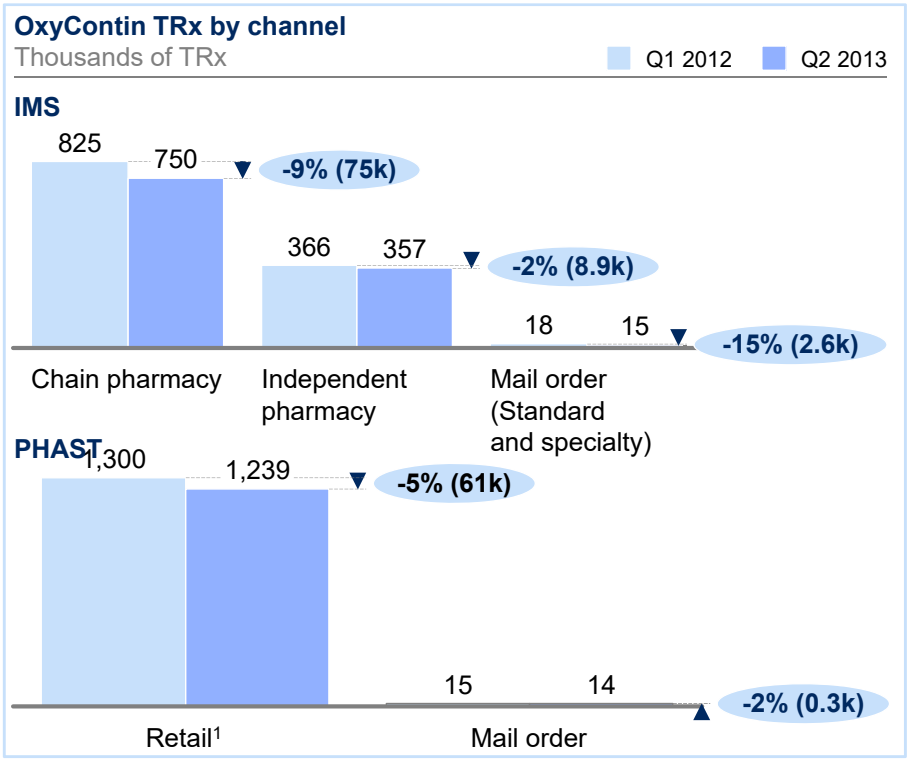
SOURCE: OMS

IMS and PHAST data both show no evidence that mail order is offsetting TRx losses from chain pharmacies



- Chain pharmacy volume decreased by 9% (75k scripts), while mail order declined by 15% (2.6k scripts) – providing **no indication that mail order has offset declines in chain pharmacy volumes**
- This relationship **holds even when we focus on Q1 2013 vs Q2 2013 (e.g., time of Walgreen's GFD implementation)**

1 Retail in PHAST data includes chain pharmacies, independent pharmacies, and food stores

Source: IMS; PHAST

Even by dosage, there is little evidence that mail order is offsetting declines at the chain pharmacy level

OxyContin TRx by channel and dosage
Change between Q1 2012 and Q2 2013

Dosage	Channel	Q1 2012 TRx	Q2 2013 TRx	% change
10mg	Chain	160998	151210	-6.1
	Mail order	2571	2104	-18.2
20mg	Chain	217528	194323	-10.7
	Mail order	4868	3941	-19.04
30mg	Chain	75490	80619	+6.8
	Mail order	1347	1038	-23.9
40mg	Chain	171146	144114	-15.8
	Mail order	4285	3643	-14.9
60mg	Chain	61827	59931	-3.1
	Mail order	1204	1279	+6.2
80mg	Chain	115799	93401	-19.3
	Mail order	3307	2903	-12.3

- Mail order volume declined for all strengths, with the exception of 60mgs
- Even for 60mgs, increase in mail order volume (+75 TRx) does not significantly offset chain volume declines (-1896)

Source: IMS

Exhibit 25

To: Miller, Lisa Dr.[Dr.Lisa.Miller@pharma.com]; McGlinn, Michael[Michael.McGlinn@pharma.com]; Hennessy, Joe[Joe.Hennessy@pharma.com]
From: Weingarten, Brianne
Sent: Fri 4/25/2014 1:45:34 PM
Subject: Fwd: Group Practice Profiles_Purdue_preliminary_v2.pptx
Group Practice Profiles_Purdue_preliminary_v2.pptx
ATT00001.htm

Begin forwarded message:

From: "Dana_Carne@mckinsey.com" <Dana_Carne@mckinsey.com>
To: "Weingarten, Brianne" <Brianne.Weingarten@pharma.com>,
"katie_robinson@mckinsey.com" <katie_robinson@mckinsey.com>
Subject: Group Practice Profiles_Purdue_preliminary_v2.pptx

Brianne and Katie,

Here is the provider profile deck updated with the UPMC interview.

Dana

Dana Carne, MD
McKinsey & Company
280 Congress Street
Boston, MA 02210
Mobile: +1 (617) 416-8922
Office: +1 (617) 753-2317

(See attached file: Group Practice Profiles_Purdue_preliminary_v2.pptx)

Preliminary Corporatized provider profiles

April 23, 2014

McKinsey&Company

DET-AAA123-20120906-

Contents

- **McKinsey "complete" profiles (to be validated/ refined)**
- Complete profiles based on input from the field
- Partially completed field profiles based on input from the field

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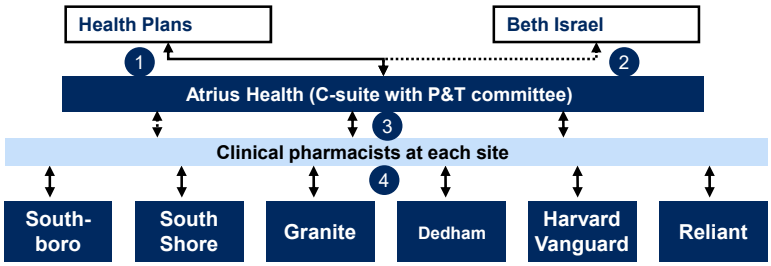
Atrius Health Summary

Decision Structure



Significant risk sharing: >50% of patients

1. MSO negotiates contracts with Health Plans
2. Atrius contracted to send patients requiring hospital care to Beth Israel Deaconess; the 2 organizations also collaborate on cost and quality strategies

High degree of system control

3. In addition to faciliating group collaboration on EMR and clincal pathway development, system creates PDL to drive P4P
4. Clinical pharmacists are located at each site to reinforce PDL and provide clinical support
5. Member groups adhere to PDL, but have varying risk preferences (e.g., Reliant only accepts risk from Fallon Clinic patients)

Considerations for customer coverage model

- **Market share[3]:** ~18%
- **Points of leverage:**
  - P&T Committee members
  - KOL/ Medical Directors within medical groups
  - Director of Pharmacy (with flow through to clinical pharmacists)
- **Potential Value Propositions:**
  - Collaboration on quality initiatives with Beth Israel
  - Adherence support addresses considerable focus on population management and TCO

1,2 No Atrius physician affiliations in data
3 Atrius serves ~700k patients in the Boston metropolitan area (total population is ~4M)

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Atrius Health (1/5)

Demographic

Atrius Health

HQ Location	Newton, MA
Geographies	▪ Southeastern Massachusetts ▪ Rhode Island ▪ Southern New Hampshire
Website	http://www.atriushealth.org/
Total number of physicians	>1,000
For profit/ non-profit	Non-profit
# of offices	>60 offices
Market share	~18% of Boston metropolitan area's total population
Payor Mix	40% Medicare; 15% Medicaid
340B status	▪ No hospitals owned ▪ Atrius is contracted to send hospital patients to Beth Israel Deaconess Medical Center, which is a 340b hospital

Medical groups

- Dedham Medical Associates
  - 86 physicians
  - 2 locations
- Granite Medical Group
  - 25 physicians
  - 1 location
- Harvard Vanguard Medical Associates
  - 600 physicians
  - 20 practice sites
- Reliant Medical Group
  - Formerly the Fallon Clinic which retains local management as a multi-specialty group
  - Has 250 physicians, 13 primary care locations, and 20+ specialty sites
- Southboro Medical Group
  - 75 providers
  - 4 locations
- South Shore Medical Center
  - 80 providers
  - 4 locations

Regional and/ or statewide collaboratives

- Greater Boston Quality Coalition
- Massachusetts Health Quality Partners

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Atrius Health (2/5)

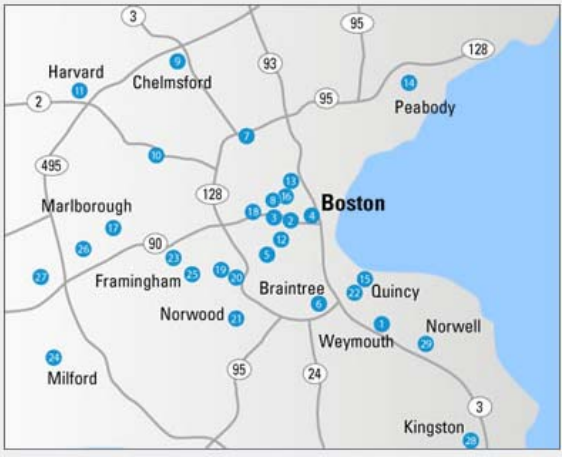
Demographic

Key clinical and health plan affiliations

- Affiliated with leading area teaching and community hospitals.
- Accept most major health insurance plans, including Aetna, Blue Cross Blue Shield of Massachusetts, Fallon Community Health Plan, Harvard Pilgrim Health Care, Neighborhood Health Plan, Tufts Health Plan, and Tufts Medicare Preferred.
- Atrius serves as primary tertiary and urban partner to Beth Israel Deaconess Medcical Center
  - Physicians send patients who require hospital care to Beth Israel Medical Center
  - This enables Atrius to offer a continuum of care from the ambulatory setting to the hospital
- Additional clinical affiliations
  - New England Baptist Hospital
  - Dana Farber Cancer Institute
  - Mass Eye and Ear Institute
- Preferred provider relationship VNA Care Network

- To serve patients in the South Shore communities of Massachusetts, Atrius Health also offers specialty services for cancer care, women's health, diagnostic imaging services, and endoscopic gastrointestinal procedures in Weymouth

Map of Atrius geographic footprint



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Atrius Health (3/5)

Structure

Organizational structure or decision-making process

- Atrius is governed by at the system level by a c-suite to facilitate group collaboration, but each group practice has a system administrator or CEO,
- Practices cooperate in areas that include EMR, practice efficiency, and clincial pathways
- The Pharmacy & Therapeutics Committee exists as part of the system-wide leadership to assess and analyze drug utilization trends, manage the Atrius Health Drug Formulary, and oversee prescribing initiatives implemented by the clinical pharmacists.
  - Multi-disciplinary committee that includes physicians and pharmacists
  - Clinical pharmacists are located at each site to reinforce PDL and provide clinical support

Control

Level of regional payor control

- Moderate: 4 Plans represent ~70% of Commercial Insurance
  - BCBS of new Hampshire
  - UnitedHealth
  - Cigna
  - Harvard Pilgrim

Access policies

- Low: reps can only have access of products covered on formulary

EMR Adoption

- 100% on Electronic Health Record
- Atrius has built a data warehouse that combines electronic medical records, claims data and pharmacy data for hundreds of thousands of patients to provide a source for research about comparative effectiveness and practice improvement

Formulary details

- Has both a PDL managed centrally as well as a clinical pharmacist at each site

Pharmacy

- Group owned and operated pharmacies exist at many of the clinic and practice locations

PCMH status

- 33 practices are Level 3 NCQA Patient-Centered Medical Homes

TA specific activity

Care/ Disease Management

- Complex chronic care program for patients with both diabetes and congestive heart failure
- Intensive home-based program for patients with limited mobility.

Medical Specialties

- Over 35 specialties, from obstetrics to pediatrics, including dental services, oncology, cardiology, ophthalmology, sports medicine, allergy, dermatology, surgery and behavioral health

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Atrius Health (4/5)

Risk

Health Plan ownership or key participation

- Over $20m at risk annually based on Blue Cross AQC performance
- >75% of revenue currently from global payments across commercial, Medicare and Medicaid populations
- Early adopters of BCBS of MA Alternative Quality Contract

Areas for risk (e.g.TA, channel, pharma benefit vs. medical benefit)

- Member groups adhere to PDL, but have varying risk preferences (e.g., Reliant only accepts risk from Fallon Clinic patients)
- Risk accepted
  - Inpatient and outpatient hospital services
  - Emergency room
  - Primary and specialty care

Outcomes measurement/ initiatives

- BCBS of MA AQC offers Improved quality, safety & outcomes as compared with traditional Pay-for-Performance
- Robust performance measure set (60+ measures) creates accountability for quality, safety & outcomes across continuum and over time

Physician employment/compensation structure (e.g., P4P, fee-for-service, salary)

- Many years experience with Pay-for-Performance (P4P) Top performer on Massachusetts Health Quality Partners quality ratings
- Considerable P4P financial incentives from BCBS of MA for high quality scores
- Physicians are employed by member groups, with a portion of compensation coming from salary, and the remainder coming from P4P

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Atrius Health (5/5)

Opportunity

Unmet needs

- System's strong dedication to the PCMH model creates opportunity to provide care coordination or clinical pathway support to broader for a broader range of chronic disease programs (e.g., beyond standard areas, such as diabetes)
- Emphasis on improving patient experience creates opportunities for innovative patient support models or resources; however, to circumvent reluctance to partner withy pharma, such a strategy must also identify financial benefits to group (e.g., initiative will improve adherence, which will lower costs and/ or provide higher quality ratings, which are tied to P4P)

Stated strategic goals

- In the changing healthcare landscape, patient experience will be key to growth
- Implement & spread "new and improved" Patient Centered Medical Home, including management of high risk populations and next level of chronic disease programs
- Strengthen collaboration across specialists, hospitals, and post-acute care to be successful Accountable Care Organization without hospital ownership

Other programs to consider

- Atrius Health offers group appointments at 10 sites
  - Physicians and patients interact during a 90-minute visit together with other patients
  - gives patients more time and better access to their physician
  - Creates better access to the services of a multidisciplinary care team
  - Provides greater patient education, and closer follow-up care.

Research efforts and/ or clinical trial participation

- Atrius medical groups, such as Harvard Vanguard will accept support from government agencies, foundations, and other external sponsors to conduct research in the following categories:
  - Health Systems research
  - Clinical trials
  - Epidemiological Studies
- Clinical trials participation may broaden and deepen relationships between Atrius physicians and pharmaceutical organizations

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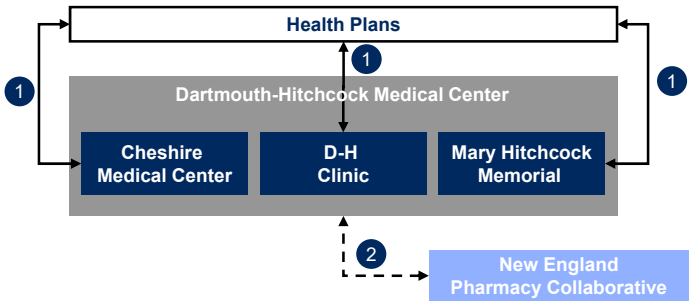
Dartmouth-Hitchcock System Summary

Decision Structure



Moderate but rising risk sharing

1 The hospitals and medical groups operate largely independent from each other

Low system control

2 New England Pharmacy Collaborative administers pharma contracting and purchasing on behalf of its members

Considerations for customer coverage model

- **Points of leverage:**
  - Reside within medical groups and hospitals
- **Potential Value Propositions:**
  - Physician education and care coordination in the community
  - Contracting to bridge the 340b gap will likely be a critical component of future success

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Dartmouth-Hitchcock (1/5)

Demographic

Dartmouth-Hitchcock

HQ Location	Concord, NH
Geographies	Concord, Keene, Manchester, Nashua, NH and parts of Vermont
Website	www.dartmouth-hitchcock.org
Total number of physicians	1,200
Medical groups	1,000 physicians in groups

- The **Dartmouth-Hitchcock Clinic**
  - 5 primary sites
  - Approximately 900 physicians
  - Includes Dartmouth-Hitchcock Keene, a 125+ provider medical practice associated with Cheshire Medical Center
- **Community Group Practices**
  - Located in Concord, Keene, Manchester, and Nashua, New Hampshire

Number of locations

- Dartmouth Hitchcock: 23 primary care locations

For profit/ non-profit	Non-profit
Total revenues	$1.6B
Payor Mix	Commercial: 37%, Medicare: 47%, Medicaid: 12%, other: 4%

340B status

- Mary Hitchcock is a rural referral hospital with a high low income population, but they are not eligible for the outpatient medication reduction because it is not a critical access hospital and apparently doesn't qualify under the Disproportionate Share Hosp (DSH) formula
- Because reimbursement is low for Medicare/ Medicaid patients, DHMC struggles with low profitability for high priced drugs (e.g., infusion products)

Regional and/ or statewide collaboratives

- New England Alliance for Health
  - Adminsters the New England Pharmacy Collaborative, which includes the Lahey Clinic
  - NEPC also has its own GPO, Novation

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Dartmouth-Hitchcock (2/5)

Demographic

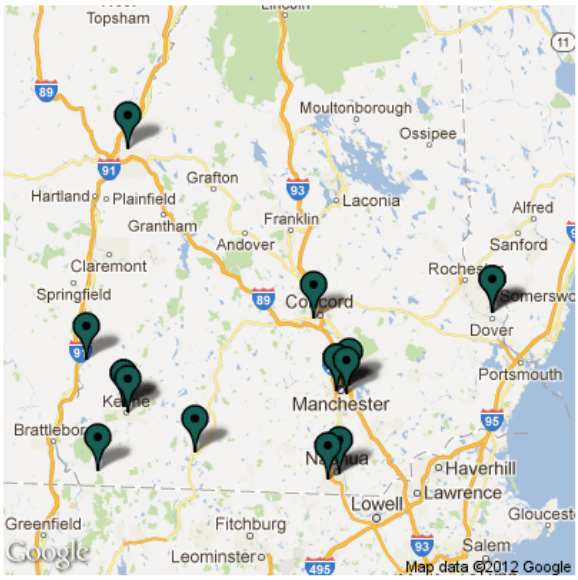
Hospital Affiliations

- Mary Hitchcock Memorial Hospital
  - 396-bed major, tertiary-care referral site
  - Children's Hospital at Dartmouth Dartmouth (CHaD)
  - Location of Norris Cotton Cancer Center
- Cheshire Medical Center (Keene, NH)
  - 69-bed regional referral center
  - Affiliated with Dartmouth-Hitchcock Keene
- White River Junction Veterans Affairs Regional Medical and Office Center
  - 60-bed facility

Other Affiliated Accounts

- The Geisel School of Medicine at Dartmouth, one of the nation's leading educational and research institutions
- Norris Cotton Cancer Center
  - One of only 40 National Cancer Institute designated comprehensive cancer centers in the United States
  - Infusion suite located on site

Map of DHMC locations and clinics



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Dartmouth-Hitchcock (3/5)

Structure

Key C-Suite roles/ names

- John Butterly , MD
  EVP for medical affairs
- Barbara Walters , DO/ MBA
  Senior Medical Director
- Gary Merchant, executive director of NEPC (New England Pharmacy council)

Organizational structure or decision-making process

- Large amount of autonomy between DHMC and Cheshire Medical Center, with Cheshire developing its own care paths and patient coordination efforts

Core decision-making process/criteria (e.g., clinical, economic, quality metrics, etc)

- Heavily focused on quality, with increased focus on outcomes as a result of Pioneer ACO status

GPO

- Novation is GPO for New England Pharmacy Collaborative

Control

Level of regional payor control

- Moderate: 4 Plans represent ~70% of Commercial Insurance
  - BCBS of new Hampshire
  - UnitedHealth
  - Cigna
  - Harvard Pilgrim

Access policies

- Medium

EMR Adoption

- Low/ moderate – system is in process of adopting Epic, but implementation is slow

Formulary details

- System-wide inpatient formulary, none for outpatient

CMS Demonstrations or PCMH

- Participant in CMS's Physician Group Practice (PGP) Demonstration and Transition Demonstration Projects
- Participant in other ACO models with three major insurers, Anthem, Cigna, and Harvard Pilgrim Health Care.

TA specific activity

TA Care Management Initiatives

- Disease management and case management programs will focus on congestive heart failure, diabetes, coronary artery disease, hypertension, advanced pulmonary disease, and on beneficiaries with high cost or complex medical conditions

Purchasing criteria for specific TA

- Although DHMC is not a disproportionate share hospital, they still receive 340b pricing for some categories

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Dartmouth-Hitchcock (4/5)

Risk

Health Plan ownership or participation

- No Health Plan Ownership, but executives within the system have expressed interest in development of a system owned health plan that covers employees
- System participates in ACO agreements with Anthem and Cigna
- Cheshire Medical Center/Dartmouth-Hitchcock Keene was selected to participate in the Pioneer Accountable Care Organization (ACO) Model

Areas for risk (e.g.TA, channel, pharma benefit vs. medical benefit)

- The CMS Physician Group Practice (PGP) Transition Demonstration Project is ongoing for 10 physician group practices to continue their effort to improve quality for Medicare beneficiaries, while reducing costs through coordination of Medicare Part A and Part B services.

Outcomes measurement initiatives

- Six of the nation's leading health care systems—Dartmouth-Hitchcock, Cleveland Clinic, Denver Health, Geisinger Health System, Intermountain Healthcare, and Mayo Clinic—will share data on outcomes, quality, and costs across a range of common and costly conditions and treatments. TDI will coordinate the data-sharing and analysis and report the results back to Collaborative members to inform the development of best practices.
- DHMC is also beginning to measure outcomes in high-variation, and high-health-impact patient populations—total knee replacement, diabetes, heart failure, spine, and primary care and prevention

Physician employment/compensation structure (e.g., P4P, fee-for-service, salary)

- Dartmouth-Hitchcock Bedford is among the D-H Clinic (DHC) sites participating in Medicare's first physician pay-for-performance initiative.
- As an Academic medical center, physicians within the system are employed, and compensated based on productivity, in addition to P4P incentives from health plans

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Dartmouth-Hitchcock (5/5)

Opportunity

Unmet needs

- Physician education and care coordination in the community
- Contracting to bridge the 340b gap will likely be a critical component of future success

Strategic Goals and M&A activity

- Considerable emphasis on improving the overall health of the community (e.g., Cheshire 2020 vision) through education
- Broader adoption of Epic EMR system (currently not being widely utilized across the region)
- Strong collaboration with other systems (e.g., Mayo) to identify best practices in quality, technology, etc…)
- Considering development of system owned health plan (possibly with Harvard Pilgrim) model (similar to the Mayo or Geisinger model

'Openness' to partner with pharmacos (known successes/failures

- Dartmouth-Hitchcock has extensive experience with clinical trials
  - D-H Investigational Pharmacy supports clinical drug trials throughout Dartmouth-Hitchcock Medical Center.

Other programs to consider

- Cheshire Medical center has developed an initiative called "Vision 2020", which has the imperative to engage the citizens of Cheshire County to become the healthiest community in the country by 2020
- Lead by a coalition of community partners representing multiple sectors - healthcare, education, private business, municipal and state governments, non-profit agencies, and recreational organizations - five Vision 2020 goals, encompassing a broad spectrum and vision of "health" have been identified:
  - Social determinants that influence health
  - Education and awareness of healthy lifestyle behaviors
  - Healthy eating
  - Active living
  - Social support networks

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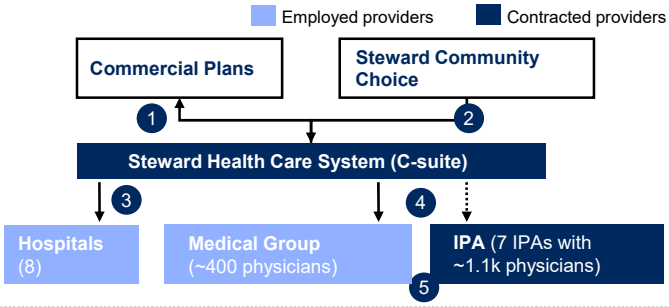
Steward Health Care System Summary

Decision Structure



Significant risk sharing: > 75% of Steward's commercial patients under global payments

1. Commercial plans contract with Health system c-suite
2. System Health Plan is largely independent from system formulary

High degree of system control

3. System-wide P&T committee defines in-patient formulary decisions (System P&T committee development/formulary is almost complete)
4. System pharmacy services communicates outpatient PDL to serve as a guide for cost-effective prescribing and internal P4P incentives (based on Commercial plan formulary)
5. Group/ IPA leadership manages member physician performance

Considerations for customer coverage model

- **Regional Market share: 12%**
- **Points of leverage:**
  - VP, pharmacy management services
  - P&T committee members
  - Group/ IPA administrators (i.e., for pull through)
- **Potential Value Propositions:**
  - Economic value proposition/ cost of care and contracting for specific TAs given accelerated implementation of Pioneer ACO and global payment structure

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Steward Health (1/4)

Demographic

Steward

HQ Location	Boston, MA
Geographies	▪ Southeastern Massachusetts ▪ Rhode Island ▪ Southern New Hampshire
Website	http://steward.org/default.asp
Total number of physicians	2000
For profit/non-profit	For profit
# of offices	15
Total revenues	TBD
Market share	~10% (Boston market)
Payor Mix	40% Medicare; 15% Medicaid
340B status	▪ For profit = No 340b status ▪ However, before going private 5 out of 6 Steward hospitals were 340b, so their pharmacy budgets have taken a considerable hit

Medical groups

Steward Physician network: an employed practice with more than 400 physicians

Steward Healthcare Network

- 1,100 member physicians from seven affiliated Independent Practice Associations (IPA's)
- Both primary care physicians and a full range of specialists
- Provide care to more than 100,000 managed care lives
- Included IPAs:
  - Saint Anne's IPA
  - St. Elizabeth's Health Professionals
  - Greater Boston Primary Care Associates
  - Norwood IPA, Inc.
  - Carney IPA
  - Merrimack Valley Physicians, Inc.
  - Good Samaritan IPA, Inc.

Regional and/ or statewide collaboratives

- Greater Boston Quality Coalition
- Massachusetts Health Quality Partners

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Steward Health (2/4)

Demographic

Hospitals

- Eight local acute-care hospitals:
  - Norwood Hospital, 292 beds
  - St. Elizabeth's Medical Center, Boston, 254 beds
  - Holy Family Hospital, Methuen, 244 beds
  - Good Samaritan Medical Center, Brockton, 231 beds
  - Quincy Medical Center, 196 beds
  - Carney Hospital, Dorchester, 153 beds
  - Merrimack Valley Hospital, Haverhill, 122 beds
  - Nashoba Valley Medical Center, Ayer, 57 beds

Other affiliated accounts

- Saint Mary's Women and Children's Center, Dorchester
- Two hospitals located outside the Boston market:
  - Saint Anne's Hospital, Fall River, Mass.
  - Morton Hospital and Medical Center, Taunton, Mass.
- Dana Farber Cancer institute
- Steward Home Care
- Steward Health Care Centers for Sleep Medicine
- PET Imaging
- Steward Center for Wound Care and Hyperbaric Treatment
- Steward Imaging Services

Map of Steward footprint

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Steward Health (3/4)

Structure

Key C-Suite roles/ names

- Ernie Anderson, VP of System Pharmacy Service
- Michael G. Callum, MD, Executive Vice President, and President of Steward Medical Group
- Mark Girard, MD, President, Steward Health Care Network

Organizational structure or decision-making process (e.g., IPA, PHO, C-suite/leadership team, etc)

- Each of the locally based provider organizations has its own governance structure that is accountable for the quality and performance of its providers.
- The integration of both local governance and central governance gives Steward the ability to manage large populations across many communities.

GPO

- Premier

Core decision-making process/criteria

- System deploys clinical pharmacists to shape physician prescribing habits by developing programs to:
  - Improve patient care
  - Meet quality measures related to pharmacy
  - Decrease pharmacy costs for patients and the network.

Control

Level of regional payor control

- High: 3 Plans represent ~70% of Commercial Insurance
  - BCBS of MA
  - Tufts Health
  - Harvard Pilgrim Healthcare

EMR Adoption

- High: Steward been working with Microsoft for several years to build an internal health information exchange to share data among community hospitals and 1,700 doctors in Massachusetts and R.I.

Control, cont'd

Formulary details

- Steward is making a slow transition to system-wide P&T committee and formulary (i.e., hospitals still have individual formularies)
- SHCN has developed its first PDL to serve as a guide for cost-effective prescribing (medications have favorable coverage with all of the major health plans)

Rep Access policies: Low

TA specific activity

Care Management

- Current outcome focus is on excellence in clinical outcomes of chronic conditions such as asthma, coronary artery disease (CAD), and diabetes

Medical Specialties

- Advanced surgical, services, obstetrics, cardiology, neurology, orthopedics, gastroenterology, cancer care and pediatrics.

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Steward (4/4)

Risk

Health Plan ownership

- Steward Community Choice, designed to provide the majority of care in physician offices and in Steward's network of community hospitals
  - Healthcare services that cannot be delivered by the Steward network are provided by Partners HealthCare's Massachusetts Boston General Hospital and Brigham and Women's Hospital

Outcomes measurement initiatives

- More than 75 percent of Steward's patients with commercial insurance are under global payments with BC/BS of Massachusetts and Harvard Pilgrim
- In less than one year, Steward says it reduced its total medical expenses by $10 million under this arrangement and substantially improved its quality scores.

Physician employment/compensation structure (e.g., P4P, fee-for-service, salary)

- Physician led and employed, with the Health system negotiating P4P benefits and capitation contracts with health plans (e.g., BCBS MA)
- Quality incentives through BCBS AQC initiative can equal up to 10% of total fee-for-service revenue

Opportunity

Unmet needs

- System is ahead of the market with ACO adoption and global payment structures, underscoring the importance of an economic value proposition/ cost of care for specific TAs
- Given faster implementation, CPO contracting may be timely for high cost products, such as infusion products

Strategic Goals and M&A activity

- Steward has taken a very aggressive approach toward raiding Medical Group practices away from competitive health systems (e.g.g, partners, Tufts)
- System is also moving toward a centralized, system-wide hospital formulary
- Steward is focused on building an integrated network of community hospitals, bringing modern facilities, world-class doctors and state-of-the-art technology into the communities where people live

'Openness' to partner with pharmacos (known successes/failures

- Multiple clinical trials available through Steward Health, including a post-Marketing observational trial for branded Humira, as well as a Phase IV Psoriasis trial led by Centocor Ortho Biotech Services (Remicade)

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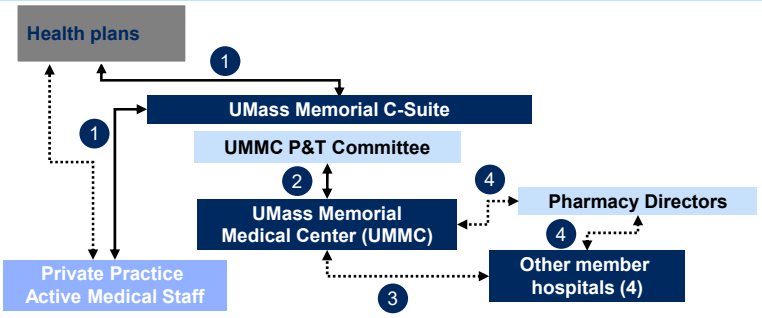
UMass Memorial System Summary

Decision Structure



UMass Memorial engages in only moderate risk-sharing

1. Contracts with health plans on system-wide level and executes managed care contracting for private practice physicians; is a "follower" when it comes to moving to risk-based payments

Low system control based on voluntary coordination among members

2. P&T Committee determines formulary for UMass Memorial Medical Center (UMMC)
3. Other system members often follow the lead of UMMC regarding their own formulary
4. Member hospital's pharmacy directors meet regularly to coordinate policies and processes

Considerations for customer coverage model

- **Regional Market share:** ~59% of Worcester market
- **Points of leverage:**
  - Hospital pharmacy directors
  - UMass Memorial Medical Center's P&T Committee members are restricted from having vendor relationships
- **Potential Value Propositions:**
  - Assistance in linking private practice physicians with hospital-based drug policies

DET-AAA123-20120906-

UMass Memorial Health Care (1/4)

Demographic

HQ Location	Worcester, MA UMassMemorial
Geographies	Central Massachusetts
Website	www.umassmemorial.org
Total number of physicians	>1,700

Medical groups

- UMass Memorial Medical Group
  - ~1,000 physicians employed by UMass Memorial
  - Multispecialty group practice delivering care at all hospital campuses as well as in 20 communities in and around Worcester
  - Faculty at UMass Medical School
- Private Practice Active Medical Staff
  - Primary and specialty care
  - UMass Memorial Health Care partners in deploying medical records, managed care contracting and other management services

Total revenues	$1.4B
Market share	~59% of Worcester market
For profit/non-profit	Non-profit

Hospital Affiliations

- UMass Memorial Medical Center, 781 beds
  - Memorial, University, Hahnemann campuses
  - UMass Memorial Children's Medical Center
- Clinton Hospital, 41 beds
- HealthAlliance Hospital
  - Leominster Campus: 135 beds
  - Burbank Campus: Simonds-Sinon Regional Cancer Center
- Marlborough Hospital, 79 beds
- Wing Memorial Hospital and Medical Centers, 74 beds
- Fairlawn Rehabilitation Hospital, 110 beds

Payor Mix	~50% Commercial, ~50% Medicare/Medicaid
340B status	UMass Memorial Medical Center, HealthAlliance Hospital
Regional and/ or statewide collaboratives	▪ Massachusetts Health Quality Partners ▪ Greater Boston Quality Coalition

DET-AAA123-20120906-

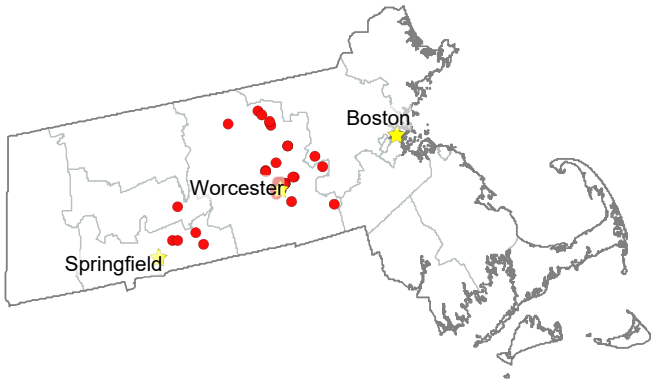
UMass Memorial Health Care (2/4)

Demographic

Other affiliated accounts

- Central Massachusetts Magnetic Imaging Center
  - Inpatient MRI and one outpatient facility
- Community Healthlink, Inc.
  - Mental health and addiction recovery services
- Caitlin Raymond International Registry
  - Search coordination and donor registry for stem cell transplantation
- UMass Medical School
  - Academic partner
- Community Health Centers, including
  - Family Health Center of Worcester
  - Community Health Connections (Fitchburg and Leominster)
  - Edward M. Kennedy Community Health Center (Worcester)
- UMass Memorial Laboratories

Map of locations



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UMass Memorial Health Care (3/4)

Structure

Key C-Suite roles / names

- John O'Brien, President, CEO
- Stephen Tosi, Senior VP, CMO

Org structure / decision-making process

- No system-wide P&T committee
- Hospital pharmacy directors often meet to coordinate policies and processes
- Other hospitals often follow UMass Medical Center's lead on drug formulary
- Memorial Medical Center's P&T committee members are not allowed to have any relationship with clinical vendors

GPO

- University HealthSystem Consortium

Control

Level of regional payor control

- Moderate, 4 or 5 organizations control >70% of the market

EMR adoption

- Different systems in different parts, ongoing coordination efforts

CMS Demonstrations or PCMH

- Six primary care practices caring for more than 30,000 patients are in transition to become PCMHs with support from the *Center for the Advancement of Primary Care*, a collaboration between UMass Memorial and UMass Medical School

Formulary details

- No system-wide formulary
- For UMass Medical Center: high control, with PDL

Access policies

- Strict policies on vendor relationships
- Access by appointment only

TA specific activity

Medical specialties

- Centers of Excellence for
  - Cancer
  - Diabetes
  - Heart & Vascular
  - Muscoskeletal Services

TA care management

- Diabetes
  - Diabetes Collaborative Project, designed to improve diabetes patients' management in primary care setting. 21 practices caring for 10,000 diabetes patients participate
  - Web-based diabetes management system, allowing patients and their health care team to manage health remotely

TA-specific outcomes reporting

- Cancer
- Heart attack
- Heart failure
- Pneumonia
- Surgery

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UMass Memorial Health Care (4/4)

Risk

Outcome measurement initiatives

- Center for the Advancement of Primary Care provides data collection and analysis for the 21 practices participating in the diabetes, hypertension, and coronary artery disease

Risk areas

- Generally limited as UMassMemorial has been lagging behind other medical groups in transitioning to risk-inclusive models of care
- This includes plan for plan for implementation of the Blue Cross Blue Shield of Massachusetts Alternative Quality Contract (AQC) in 2013

Physician employment / compensation structure

- Salary plus incentives for UMass Memorial Medical Group
- Physicians affiliated with, but not employed by, UMassMemorial often receive better malpractice insurance rates through the group. This is one mechanism the group uses for quality control of non-employed physicians.

Opportunity

Unmet needs

- With chronic diseases such as diabetes and hypertension at the forefront of collaboration / integration within UMass Memorial, standardized treatment protocols – incl. drug treatments – are logical next steps for UMass Memorial

Strategic goals and M&A activity

- Recently cut >700 jobs due to lower Medicare reimbursements and decrease in patient visits
- Sold its Home Health & Hospice business in June 2012
- Significant uncertainty about future strategy and direction, as CEO resigned earlier this year

Openness to partner with pharma

- Highly restrictive vendor relationship policies inhibit the potential for collaborations with pharmacos
- Participates in clinical trials through its academic partner, UMass Medical School

Other important programs

- eICU program at UMass Memorial Medical Center
  - Critical care physicians use voice, data and video technology to enhance patient care provided by bedside staff in adult ICUs
  - Has resulted in reduced ICU mortality and length of stay

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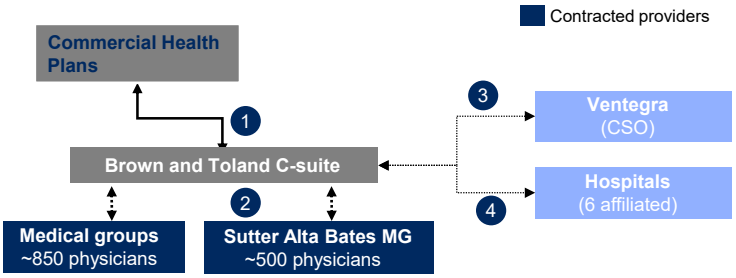
Brown & Toland Summary

Decision Structure



Moderate risk sharing: <50% of lives from HMOs

1. Brown & Toland leadership negotiates contracts covering 335k lives (~175k from PPO, ~115k from HMO) for Medical Group Physicians (excluding Sutter Alta Bates)

Moderate degree of system control

2. System provides practice management, contracting, and HIT support for member groups, but exerts minimal system-wide pressure
3. Ventegra, a pharmacy services organization, provides contracting and medication managements services for specialty, chemotherapy, blood products, office-based injections, and home infusion products
4. Physicians send patients who require hospital care to one of 6 primary hospital affiliates

Considerations for customer coverage model

- **Regional Market share:** ~330k covered lives in San Francisco area
- **Points of leverage:**
  - CMO and Governance sub-committees (e.g., utilization management, quality management)
  - Ventegra leadership
  - Affiliated hospital P&T committees
- **Potential Value Propositions:**
  - Reduction in care variation to improve medical utilization/ management
  - Value prop should include clear communication of economic value of potential collaboration

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Brown & Toland Physicians (1/3)

Demographic

BROWN & TOLAND PHYSICIANS

HQ Location San Francisco, CA

Geographies San Francisco County & Northern San Mateo

Website http://www.brownandtoland.com

Total number of physicians: 1,500

Medical Groups/IPA: For Profit IPA

- Brown and Toland: 850 physicians aligned in an IPA
- Also provides management/ administrative services for Alta Bates Medical Group (~500 physicians)
  - As a result of this alliance, B&T physicians also became participants in the Sutter Medical Network

Total revenues $~220M

Market share

- ~20%
- ~335k lives in San Francisco and San Matteo Counties (total population of ~1.5M)

State payor concentration

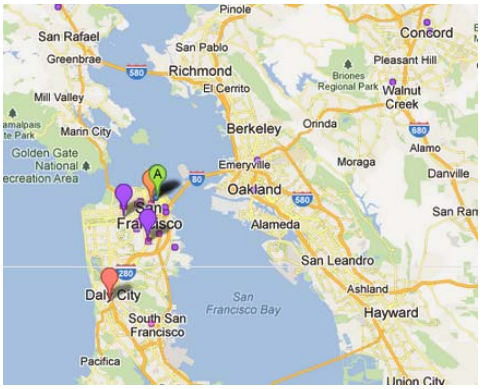
Moderate: 4-5 Health Plans represent 70% of the market

6 affiliated Hospitals

- California Pacific Medical Center
- Chinese Hospital
- Saint Francis Memorial Hospital
- Seton Medical Center
- St. Luke's Campus - CPMC
- St. Mary's Medical Center

Map of Locations

- Individual group practices often geographically aligned with hospital locations



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Brown & Toland Physicians (2/3)

Structure

Organizational structure or decision-making process (e.g., IPA, PHO, C-suite/leadership team, etc)

- IPA offers C-suite leadership with support from board of directors.
- Comprised of two inter-related corporations:
  - Brown & Toland Medical Group (BTMG) a clinically integrated physician network
  - Brown & Toland Physician Services Organization (BTPSO), a wholly owned subsidiary of BTMG that provides comprehensive managed care administrative services

Core decision-making process/ criteria (e.g., clinical, economic, quality metrics, etc)

- Groups focused on continuing to improve its Healthcare Effectiveness Data and Information Set (HEDIS) and Pay-4-Performance (P4P) scores.

Control

Level of regional payor control

- Moderate: 4-5 Health Plans represent 70% of the market

EMR Adoption

- B&T places strong emphasis on building connectivity among physician members through HIT
- In process of transitioning all physicians to the IPA's electronic health record, AllScripts – currently, <50% of made the full transition, but the number is growing
- GE Centricity Business supports all insurance products, including HMO, PPO, Medicare, indemnity, and self-pay.
  - The system also is fully integrated with Brown & Toland's managed care transactional system
  - Physicians with a large HMO patient population have real time access to all HMO eligibility/ plan information, integrated authorization and claims submissions.

Formulary details

- No system-wide formulary in place – physicians defer to the individual formularies provided by health plans

Access policies

- Medium/ High

TA specific activity

5 Disease Management Initiatives

- Asthma / COPD Management
- Diabetes Management
- HIV Management
- Wellness Programs
- CHF Management Program

Purchasing criteria for specific TA

- Ventegra (CSO) provides direct pharmacy management and contracting for specialty, chemotherapy, blood products, office-based injections, home infusion and hospital

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Brown & Toland Physicians (3/3)

Risk

- **Health Plan ownership or risk sharing**
  - Pioneer ACO
    - Blue Shield is partnering with Brown & Toland Physicians Group and California Pacific Medical Center (a Sutter Health affiliate) for the integrated care of 21,000 HSS members assigned to Brown & Toland physicians.
  - Working on a patient-centered medical home pilot, which will leverage IPA's existing EHR/HIE infrastructure.

- **Physician employment/compensation structure (e.g., P4P, fee-for-service, salary)**
  - All physicians are independent providers, to whom B&T administers fee-for-service or capitated PMPM payments based on those health plans that cover their patient lives
  - IPA may also receive P4P bonuses from specific health plans, which are then distributed to IPA physician members

- **Risk by TA**
  - Physicians will take full risk on self injectable products, making the partnership with Ventegra more important for physicians looking to offset costs (however, don't take full risk on the office administered infusion

Opportunity

- **Unmet needs**
  - Strong emphasis on reduction in care variation to improve medical utilization and management
  - CMO has historically been wary of pharma industry – value prop should include clear communication of economic value of potential collaboration

- **Strategic Goals and/ or M&A activity**
  - Brown and Toland became members of the, broadening their footprint through collaboration with the Alta Bates Medical Group
  - In 2010, Stanford hospital joined the B&T network, expending the IPA's specialist network
  - Dedicated to maintaining an "all products' approach to healthcare, including maintaining contracts with both PPO and HMO patients

Other Noteworthy programs

- ER "frequent flyer" intervention program contacts patients with 2+ ER visits in a 6 month for:
  - Medication management
  - Referrals to specialist
  - Education on how to access PCP
  - Encourage use of urgent care resources
  - Enroll patients into programs:
  - Case Management/ Disease Management/ Intensive Home Medical Management
- iHealthRecord: Patients can create secure online health records at any time and from anywhere, plus medication adherence plans and health education

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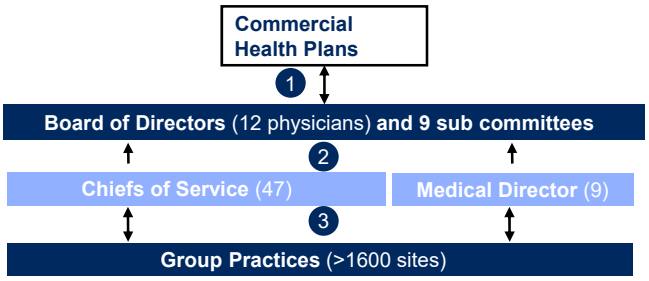
Hill Physicians System Summary

Decision Structure



Significant risk sharing: >50% of patients

1. Full risk sharing for ~300k HMO lives (includes biologics with carve –out for sub-q, excludes pharma)

High degree of system control

2. Chiefs of Service and Medical Directors coordinate specialty-based physician panels to review clinical performance and shape "Criteria for Care", which is similar to a system formulary
3. Criteria of Care are reinforced in Medical groups/ IPA through HIT and P4P (separate from Health Plan P4P)

Considerations for customer coverage model

- **Hill Health Regional Market share:** ~15% of Sacramento HMO lives
- **Points of leverage:**
  - Medical directors and Chiefs of Service
  - Sub-committee heads
- **Potential Value Propositions:**
  - Achieve IHA quality metrics for big chronic disease states
  - Support disease management initiatives for costly TAs

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Hill Physicians (1/3)

Demographic

HQ Location	San Ramon, CA
Geographies	East Bay, San Francisco, Sacramento, San Joaquin
Website	http://www.hillphysicians.com

Total number of physicians: 3,500

Medical Groups
- ~1600 physician offices
- Majority of member groups have <7 providers
- Large member groups identified:
  - UCSF Medical Group (500 employed physicians)
  - Physicians Integrated Medical Group (~500 physicians)

Total revenues	$455M
Market share	~20% of HMO lives[1]
Number of offices	1600+ offices 18 urgent care centers

Other affiliated accounts
- Affiliated with 36 Hospitals
- ACO participation with Catholic Healthcare West Hospital

For profit/non-profit	For-profit

Payor Mix
- ~300k HMO lives
- Hill HMO patients represent ~40% of the average primary care physician member's patient base

Structure

Key internal stakeholders
- Ann Woo, Pharm.D. – Director, Clinical Support
- Terry Hill, MD – VP, Medical Group Services
- Elisabeth H. Renner, MD
  - Bay Region Medical Director
  - Primary care medical director for Hill and chair of the Membership Committee.
- Chris McCrary, Director of Contracting & Network Development
- Thomas F. Long, MD
  - Chief Medical Officer
  - Dr. Long serves on the Executive Committee and chairs the Quality Improvement Committee.
- Alvin M. Sockolov, MD who serves on:
  - Executive and Provider IT Committees
  - Provider Compensation Subcommittee of the Finance Committee
  - Primary Care Medical Director for Sacramento

1 Assumes ~1.2M HMO lives in Sacramento/ San Francisco/ San Jose market

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Hill Physicians (2/3)

Structure, cont'd

Organizational structure

- IPA managed by PriMed Consulting services
- Governing board of directors, that oversees the entire organization, along with 9 sub-committees (comprised of physicians from member groups)
- Medical directors and chiefs of service are responsible for community-based physician panels comprised of network physicians:
  - Ensures stability/ consistency of care delivery/ administration.
  - Panels – organized by specialty – meet regularly to review clinical performance.

Core decision-making process/criteria

- Controlling the cost of premiums
- Reducing the overall cost of healthcare delivery
- Maintaining or improving upon clinical quality and member satisfaction

Control

Level of regional payor control

- Moderate: 4-5 Health Plans represent 70% of the market

EMR Adoption

- **High**: by end of 2011, the base of installed Hill EHR practices had grown to 112 locations, with more than 300 physician users and more than 1,000 mid-level users by the end of 2012
- Throughout the IPA, there is extensive use of electronic systems for practice management, health records, prescribing, and referrals.

Formulary details

- No system formulary, but does have set "criteria for use" that physicians largely abide by
- "Criteria for use" spearheaded by regional medical director physicians, who also maintain active clinical practices.

CMS Demonstrations or PCMH

- The first phase of the PCMH project is occurring in the Sacramento region with a medical neighborhood of 13 primary care physicians in seven practice sites.

Access policies

- Moderate: Access policies defined at practice level

TA Care Management

- Intensive Home Medical Management program, has helped to reduce hospital admissions and readmissions, emergency room visits, and hospital lengths of stay for a select group of high-risk, home-bound, and/or medically fragile patients.
- Hill also uses predictive modeling and adaptations to manage chronic conditions.

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Hill Physicians (3/3)

Risk

Outcomes measurement initiatives

- In late 2009, Blue Shield of California launched a Sacramento-based ACO with Hill Physicians and Catholic Healthcare West. It includes more than 40,000 CalPERS members, who are eligible for special disease manage-ment, prescription drug, and palliative-care services.

Physician employment/compensation structure (e.g., P4P, fee-for-service, salary)

- Models vary for specialists
  - Almost all are under FFS arrangements but there are some exceptions.
  - Piloting specialty capitation for contracted specialists in Sacramento
  - 50% of oncology services are provided through episodic structure
- Primary Care: Physicians compensation is 75% FFS (paid weekly) and 25% Population Management Fee (PMF), paid quarterly.
  - PMF based on Integrated Healthcare Association's quality-care metrics (i.e., cost of primary care, specialty care, pharmaceuticals, and hospitalization)

Risk by TA

- IPA assumes full-risk for healthcare provider administered drugs, but they carve out sub-q and other self-administered biologic product risk to health plans

Opportunity

Unmet needs

- Achieve IHA quality metrics for big chronic disease states
- Support disease management initiatives for costly TAs

Strategic Goals and/ or M&A activity

- Stated Strategic Goals
  - Transformation Care Initiatives
  - Admission Diversion from ED
  - Post-Acute Transitions
  - Palliative Care
  - Patient-Centered Medical Home (PCMH)
  - Enhanced Access to Care
  - Referral Management

'Openness' to partner with pharmacos (known successes/failures

- Historical reluctance to involve pharma in development of care pathways for specific disease states

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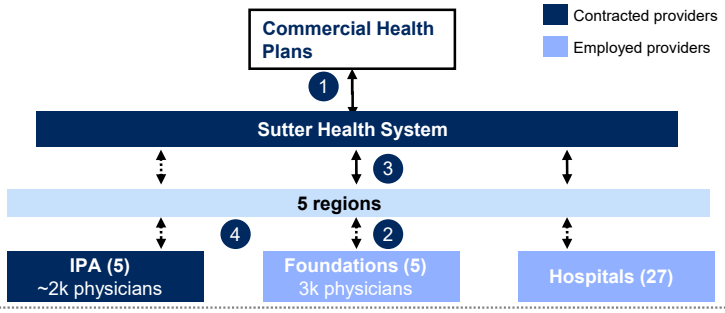
Sutter Health System Summary

Decision Structure



Significant risk sharing: >50% of patients

1. For 200k HMO lives, system negotiates risk sharing contracts for providers and hospitals, but excludes biologics for medical groups

Moderate degree of system control

2. Hospitals, foundations and IPAs organized into 5 regions, but the entities within regions are largely independent from one another
3. Broader system C-suite is trying to coordinate more system-wide outpatient formulary, but hospitals don't even adhere to the system-wide inpatient formulary
4. No system-wide outpatient formulary to enforce, groups/ IPAs defer to health plan formularies

Considerations for customer coverage model

- **Sutter Health Regional Market share:** ~29% (total acute care beds)
- **Points of leverage:**
  - Corporate: Director of outpatient pharmacy services
  - KOL within medical foundations and groups
- **Potential Value Propositions:**
  - Interest in reducing care variation, as well as standardization of care across system

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Sutter Health Network (1/4)

Demographic

Sutter Health
With You. For Life.

HQ Location	Sacramento, CA
Geographies	Northern California, Hawaii
Website	http://www.sutterhealth.org/

Total number of physicians: 5248 in the Sutter Medical Network

5 Healthcare Foundations:
- Palo Alto Medical Foundation (>1000 physicians)
- Sutter Pacific Medical Foundation (>230 physicians)
- Sutter east Bay Medical Foundation (>160 physicians)
- Sutter Gould Medical Foundation (>240 physicians)
- Sutter Medical Foundation (>1300 physicians)

5 IPAs
- Alta Bates Medical group
- Central Valley Medical Group
- Brown and Toland Physician Group
- Mills-Peninsula Medical Group
- Sutter Independent physicians (500 physicians)
- Sutter Neuroscience Institute Sutter Express Care clinics (located in Rite Aid Pharmacy Stores

Number of offices
- Ambulatory (outpatient) Surgery Centers: 20
- Cardiac Centers: 8
- Cancer Centers: 9
- Acute Rehabilitation Centers: 5
- Behavioral Health Center:s 9
- Trauma Centers: 4
- Neonatal ICU's: 10
- Sutter Express Care Medical Clinics: 3

Other affiliated accounts
- Sutter Neuroscience Institute Sutter Express Care clinics (located in Rite Aid Pharmacy Stores)

Payor Mix
40% Medicare, 38% Commercial, 17% Medi-Cal, 3% Self, 2% Other

340B status
High: 70% of Remicade utilization through 340b pricing

State payor concentration
Moderate: 4-5 Health Plans represent 70% of the market

Total revenues	9.1 Bil (2010)
Market share	29%
For profit/non-profit	not-for-profit

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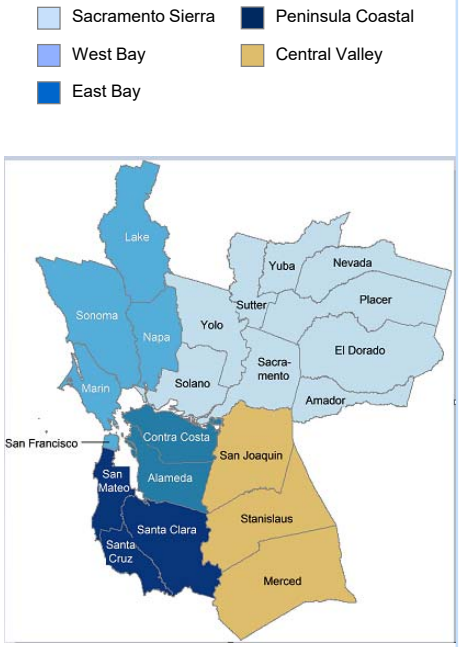
Sutter Health Network (2/4)

Demographic

27 Hospital Affiliations

- Alta Bates Summit Medical Center, Berkeley and Oakland
- California Pacific Medical Center, San Francisco –California Children's Pacific, Davies and St. Luke's campuses
- Eden Medical Center, Castro Valley–San Leandro Hospital Campus
- Kahi Mohala, A Behavioral Healthcare System,Ewa Beach, HI
- Memorial Hospital Los Banos, Los Banos
- Memorial Medical Center, Modesto
- Menlo Park Surgical Hospital, Menlo Park
- Mills-Peninsula Health Services, Burlingame
- Novato Community Hospital, Novato
- Sutter Amador Hospital, Jackson
- Sutter Auburn Faith Hospital, Auburn
- Sutter Coast Hospital, Crescent City
- Sutter Davis Hospital, Davis
- Sutter Delta Medical Center, Antioch
- Sutter Lakeside Hospital & Center for Health, Lakeport
- Sutter Maternity & Surgery Center of Santa Cruz
- Sutter Medical Center, Sacramento –Sutter General Hospital, Sutter Memorial Hospital and Sutter Center for Psychiatry
- Sutter Medical Center of Santa Rosa, Santa Rosa
- Sutter Roseville Medical Center, Roseville
- Sutter Solano Medical Center, Vallejo
- Sutter Surgical Hospital – North Valley, Y

Map of Medical 5 Sutter regions



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Sutter Health Network (3/4)

Structure

Key C-Suite roles/ names
- Patrick fry, President and CEO
- Board of directors governs medical foundations and hospital systems
- Each region also has its own board of directors

Organizational structure or decision-making process (e.g., IPA, PHO, C-suite/leadership team, etc)
- Sutter is a medical network. IPAs and medical foundations refer patients to one another rather than competing for business
- System is organized into five regions
  - Fairly decentralized, but system is placing increasing emphasis on system-wide standard of care
- The medical foundations and hospitals are governed by boards whose members include unpaid volunteers representing the communities served.

Core decision-making process/criteria (e.g., clinical, economic, quality metrics, etc)
- Quality, service, affordability

GPO
- ~20% of pharmacy contracting is direct to manufacturer

Level of regional payor control
Moderate: 4-5 Health Plans represent 70% of the market

Control

EMR Adoption
- Medical Foundations and Groups have high EMR use, but EMR use within hospitals has had slower uptake

Formulary details
- Sutter Health system has a system-wide formulary for the hospital, but not for Medical groups
- Given regional organization, it is unlikely that Medical Groups will ever have a system-wide formulary

Control cont'd

PCMH Initiatives
- In 2011, Sutter Health established a patient-centered medical home team in Davis, within a family practice office

Access policies
- Moderate

TA specific activity

Medical specialties
- Sutter-affiliated hospitals are regional leaders in cardiac care, women's and children's services, cancer care, orthopedics and advanced patient safety technology.

Purchasing criteria for specific TA
- Do not purchase in office infusion products until after PA has already been approved (i.e., they don't have risk here)

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Sutter Health Network (4/4)

Risk

Health Plan ownership

- Sutter Select covers Sutter patients and some several unions (goal is to open up to employers eventually)
- HealthNet is the first major carrier that Sutter has paired up with to help regain membership that they've lost to Kaiser

Outcomes measurement initiatives

- One ACO with Blue Shield and Brown and Toland to manage patient care for 21,000 commercial patients who are City of San Francisco employees
- Another ACO exists with United to manage care for Hewlitt Packard Employees.
- There are also currently 52 active variation reduction projects, with 36 demonstrating significant change in clinical practice

Areas for risk (e.g.TA, channel, pharma benefit vs. medical benefit)

- Sutter has a high proportion of capitated HMO patients (>50%). However, Sutter does not carry risk for biologics, so the risk remains with the health plan.

Physician employment/compensation structure (e.g., P4P, fee-for-service, salary)

- Salary, shareholder track in individual practices

Opportunity

Unmet needs

- Care coordination and standardization across the 5 regional groups
- System has also emphasized a strong emphasis on reducing physician variation across system

Strategic Goals and M&A activity

- Clinical integration, care standardization among IPA physicians

'Openness' to partner with pharmacos (known successes/failures

- Clinical trials conducted at Sutter Medical Foundation's L Street Office and at the Sutter Cancer Center Research program in Sutter General Hospital
- Programs typically introduced through system level pharmacy executive (VP of Pharmacy)
- Stated preference for 'non-branded' programs oriented towards patient care initiatives

Other important programs

- "**Care Everywhere**": New technology that enables medical teams from separate organizations to share a patient's medical records at the time he or she receives care. Through this technology, Sutter Health is now linked with UC Davis Health System, Stanford, and Santa Cruz County Health Services to share vital patient information.

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Contents

- McKinsey “complete” profiles (to be validated/ refined)
- **Complete profiles based on input from the field**
- Partially completed field profiles based on input from the field

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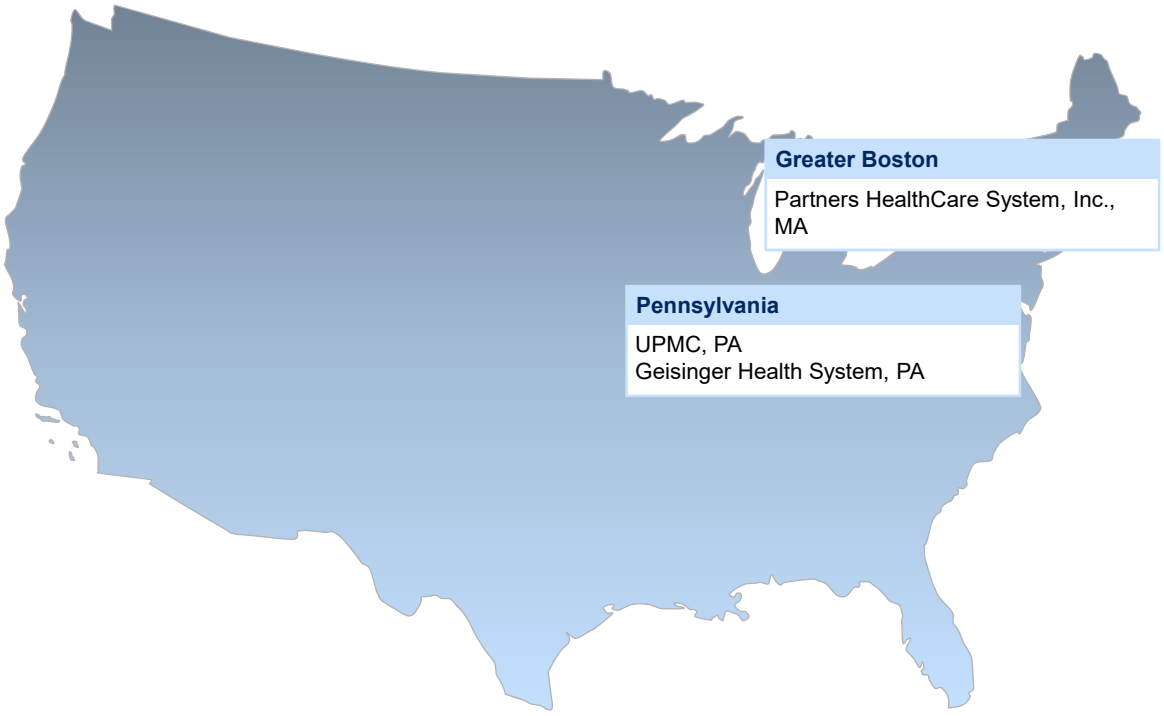
Selected IDNs



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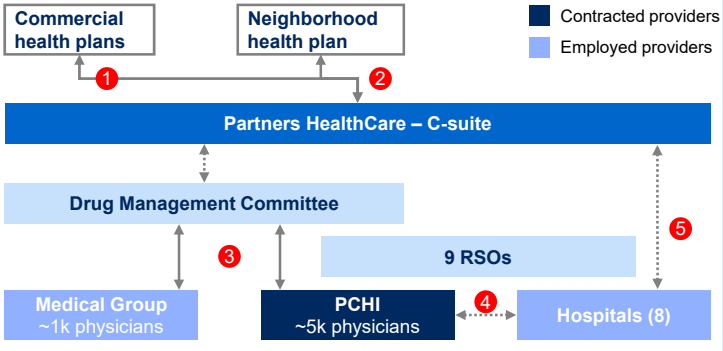
Partners HealthCare summary

Decision structure



Moderate risk sharing: Global Payments and Pioneer ACO

1. Commercial payer formularies (e.g., BCBS of MA) shape outpatient "PDL"
2. Neighborhood Health Plan is a system-owned HMO and largely independent

Decentralized inpatient, centralized outpatient formulary

3. Partners employed Interventional pharmacists ensure generic utilization and reinforce adherence to the "PDL" defined/informed by Partners' Drug Management Committee
4. PCHI physicians coordinate care within 9 Regional Service Organizations (RSO) to manage cost and quality metrics
5. No system-wide inpatient P&T committee; individual hospitals manage their own P&T

Considerations for customer coverage model

- **Regional market share:** ~25%
- **Points of leverage:**
  - Drug Management Committee members
  - Interventional Pharmacists
  - KOL within hospitals and groups
- **Potential value propositions:**
  - Cost cutting for high cost, Medical Benefits
  - Need for messaging at individual site level to match up with outpatient "PDL"

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Partners HealthCare (1/6)

Demographic

HQ location	Needham, MA
Geographies	Greater Boston Area
Website	http://www.partners.org/
Total number of physicians	6,300
For profit/non-profit	Non-profit
Payor mix	Medicare: 10%; Medicaid: 20%; Commercial: 70%
340B status	Partners has multiple hospitals with 340B status
Revenue	$8.1B
Market share	25%
Medical groups:	18 Groups with 21 PCP locations

- **Partners Medical Group:**
  - PCPs: 375
  - Specialists: 350
  - Residents: 255

Medical groups, continued

- **PCHI (Partners Community HealthCare, Inc.) is a network of affiliated physicians**
  - Affiliated Pediatric Practices (APP)
  - Brigham and Women's Physician Organization (BWPO)
  - Burlington Medical Associates
  - Cambridge Health Alliance
  - Cape Ann Medical Center
  - Cape Ann Pediatrics
  - Charles River Medical Associates
  - Emerson PHO
  - Hawthorn Medical Associates
  - Hallmark Health
  - Massachusetts General Physician Organization
  - North Shore Health System
  - Newton-Wellesley PHO
  - Pentucket Medical Associates
  - Plymouth Medical Group
  - PrimaCARE
  - Tri - County Medical Associates

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Partners HealthCare (2/6)

Demographic

Hospitals

8 acute-care hospitals:

- Massachusetts General Hospital (includes Mass General Hospital for Children), Boston, 907 beds
- Brigham and Women's Hospital, Boston, 750 beds
- North Shore Medical Center, composed of 3 acute-care facilities with a combined 414 beds
- NSMC Salem Hospital (includes NSMC North Shore Children's Hospital)
- NSMC Union Hospital in Lynn
- Newton-Wellesley Hospital, Newton, 218 beds
- Faulkner Hospital, Boston, 153 beds

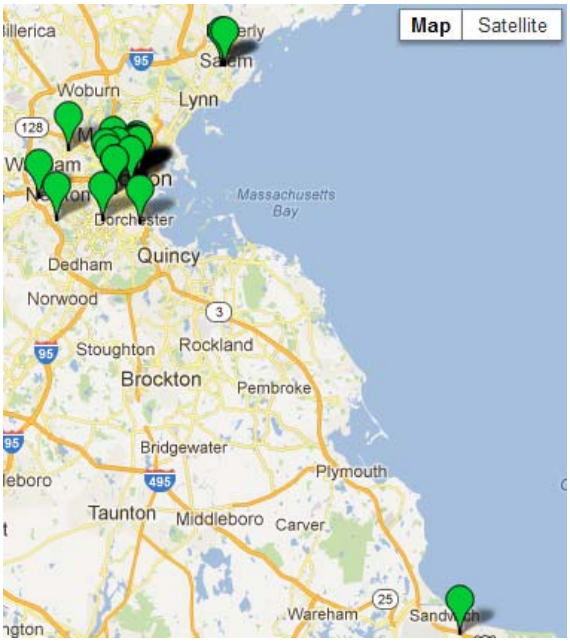
Other affiliated accounts

- Harvard Medical School
- Mass General/North Shore Center for Outpatient Care in Danvers
- Brigham and Women's/Mass General Health Care Center at Foxborough
- Dana-Farber/Brigham and Women's Cancer Center

Regional and/ or statewide collaboratives

- Greater Boston Quality Coalition
- Massachusetts Health Quality Partners

Map of Community Care Alliance



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Partners HealthCare (3/6)

Structure

Organizational structure or decision-making process (e.g., IPA, PHO, C-suite/leadership team, etc.)

- MSO (Management Services Organization) for Partner's Community Health
- Individual Hospital CEOs manage P&L
- Outpatient formulary decisions are more centralized
  - To manage outpatient utilization, pharmacist team at system level details primary care physicians
  - However, Partners allows hospitals to make individual decisions regarding several drugs
- The PCHI network is organized into Regional Service Organizations (RSOs)
  - In each, physicians coordinate medical care and collaborate in other areas
  - RSOs vary greatly in size and structure, ranging from a small RSO of 14 to 250+ physicians

Core decision-making process/criteria (e.g., clinical, economic, quality metrics, etc.)

- Quality, economic, generic utilization (~75%)

GPO

- Novation

Control

Level of regional payor control

High: 3 plans represent ~70% of commercial insurance

- BCBS of MA
- Tufts Health
- Harvard Pilgrim

EMR adoption

- All Primary Care Physicians (PCPs) and specialists have adopted full use of the HER; this level of adoption is much better than the national average
- ~90% of prescriptions written in hospitals go through EMR

Access policies

- Med-low

Control cont'd

Formulary details

- Drug Management Committee, chaired by primary care doctors across the system, review new outpatient drugs and cost-effective drug-tiering strategies
- This creates a medical group guideline "PDL" exists that summarizes preferred/ low cost drugs based off of regional payors formularies
- System also deploys "interventional pharmacists" to reinforce that physicians utilization and cost metrics
- For inpatient care, no system P&T committee or formulary

CMS demonstrations or PCMH

- September 2011, Partners announced it was moving all primary care to a PCMH model
  - Goal for at least 50% of its primary care practices to receive official recognition as patient-centered medical homes through the (NCQA) by the end of 2013

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Partners HealthCare (4/6)

Risk

Health plan ownership

- Partners also purchased Neighborhood Healthplan in 2011 (240,000 lives, mostly low income members on public plans)

Outcomes measurement initiatives

- Pioneer ACO
- Partners HealthCare has renegotiated its contract with Blue Cross Blue Shield of Massachusetts to become part of the Blue plan's Alternative Quality Contract, which is based on global payments. Partners' new contract runs through 2014
- Contract requires the system to outperform the rest of the Blue plan's provider network in controlling the growth in HealthCare spending or risk returning some of the payments it receives

Areas for risk (e.g., TA, channel, pharma benefit vs. medical benefit)

- As part of the BCBS AQC Partners has been focusing on cost containment and high-value care for high-cost conditions such as colon cancer, diabetes and stroke, and is prepared to assume risk for these and other conditions under the agreement

Physician employment/compensation structure (e.g., P4P, fee-for-service, salary)

- P4P around big disease states; piloting capitation

Opportunity

Unmet needs

- Economic value discussions to reduce costs for high-cost conditions (e.g., diabetes, stroke)
- Need for messaging at individual site level to match up with outpatient "PDL" cost cutting for high cost, medical benefits

Strategic goals and M&A activity

- Partners continues to be aggressive to attain 5-year $300 million cost cutting initiative (not including personnel/labor). Initiative is called the Patient Affordability Program
- System also aims to expand use of evidence based medicine in formulary decisions; increase level of drug interventions for formulary compliance

'Openness' to partner with pharmacos (known successes/failures

- Low (state and federal regulations discourage manufacturer sponsored programs)

Other important initiatives

- Henri A. Termeer, a retired executive Genzyme Corp., donated $10 million to Massachusetts General Hospital to create a personalized medicine program within the hospital's cancer center
- The Henri and Belinda Termeer Center for Targeted Thera-pies will focus on drugs tailored to the genetic structure of tumors, especially breast cancers, lung cancers and leukemia

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Key provider profile: Partners (5/6)

Partners policies

Legislative Environment
- State and federal regulations discourage manufacturer sponsored programs

APRN prescribing:
- Must complete education relative to:
  - effective pain management, identification of patients at high risk for substance abuse, and counseling patients about the side effects, addiction, storage and disposal

PA prescribing:
- Must have a supervising physician, only Schedules II, III and IV

Partners info

Clinical goals:
- Increased integration, improved quality and improved ability to measure quality, increased efficiency, improved patient satisfaction, improved physician satisfaction, support for academic mission of the hospitals, support for service lines

Industry collaborations:
- Decision makers: Commission on interactions with industry
- Policy: http://www.partners.org/Assets/Documents/About-Us/OII/CommissionReport2009.pdf
- Recommendations: http://www.partners.org/Assets/Documents/About-Us/OII/CommissionReportRecs.pdf
- Contact office: 617-643-7752 or PHSOII@partners.org

Patient/pain

Partners initiatives
- Acute pain inpatient service

Purdue products
- Brigham: OxyContin used extensively, probably the #1 prescribed long acting. Butrans not used, although Dr. Ross wrote first 3 Rx

Education
- xx

Pain policies
- Brigham's pay for performance measured on generic Rx writing
- PAs and NPs can prescribe schedule narcotics
- Pharmacists go into clinics and push generics

Locations
- Brigham: Pain management team out of 850 Boylston location

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Partners HealthCare (6/6)

Next steps

Purdue connections

Master Clinical agreement
- ??

KOLs contacts
- Paul Arnstein, NP (MGH)
- Bob Jamison, PhD (BW)
- Jianren Mao, MD (MGH
- Michelle Matthews, MD (BW)
- Ed Michna, MD (BW)
- Srdjan Nedeljkovic, MD (BW)
- George Papakostas, MD (MGH
- Ajay Wasan, MD (BW)

Purdue staff connections
- Andy Ritter
- Matt [redacted]: Familiar with ortho department. Also with clinical pharmacist who is part of pain management team, works in internal medicine. Also cardiologist Christopher Cannon. Also calls on Brig pharmacists

Other Partners contacts
- William Shrink
- Dr. Padma Galur: Director of Inpt Pain Pediatric Service at MGH. Active Bup investigator.
- Martin McQuadro, "forever in Purdue's debt" for that
- John Fanikos, Director of Pharmacy at BW.
- Carlos Rodrigues Golindo is at Dana Farber
- Chuck Verdie
- Shawn Fagan: Medical Director at Burn Unit at MGH
- Dr. Norrainge, Director of Interventional Pain Care
- Dr. Kathryn Selvange, Palliative Care

Ideas for inroads

Access
- Completely shut down to reps

Third parties
- ASPMN chapter: Past president is NP at MGH (Paul Arnstein)
- Eastern Pain Society: Have meeting in Spring
- Nurse who is having an initiative Cynthia Laggis

Other connections
- Dr . Sackler (owner) is major donor to MGH

Areas of focus in which we could partner
- QI people?
- Patient satisfaction?

Next steps
- Call with Ed Michna
- Reach out to contacts to get their opinion
- Reach out to Dr. Sackler
- Develop ideas around QI and patient satisfaction

SOURCE: Source