High impact interventions to rapidly address market access challenges

Innovative Contracts
DRAFT

December 2017

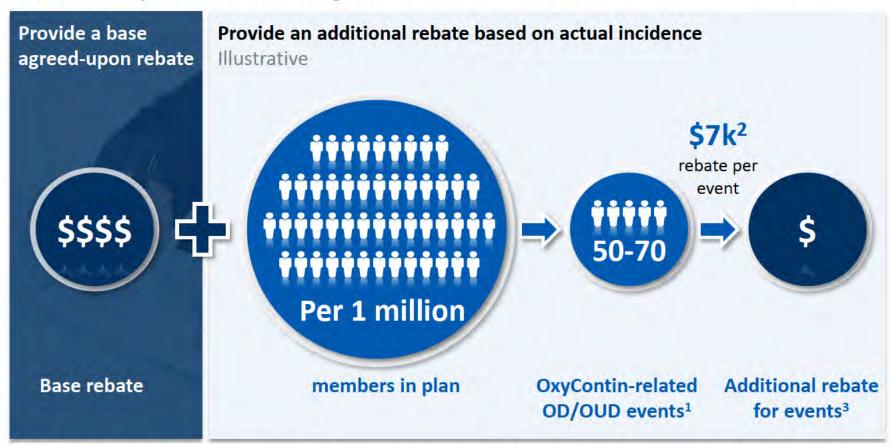
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Purdue's Event-Based Contract offering

We believe in our technology: We will pay additional rebates on any new OxyContin related overdose or opioid use disorder diagnosis



- Disclaimer: First diagnosis of opioid-related overdose (OD) or opioid use disorder (OUD) based on ICD codes and OxyContin script within 1 month of event
 - ICD-10 codes F11, T40.0 , T40.2, T40.3, T40.4F11
 - ICD-9 codes 304.0, 304.7, 305.5, 965.00, 965.02, 965.09
- Rebate is linked to excess medical costs (e.g. ~\$14K over 1 year, or OxyContin prescription costs per year ~\$6K)

High impact interventions to rapidly address market access challenges

Ad hoc support synthesis DRAFT

December 2017

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Headwinds Purdue is facing are stronger than ever

Media

14, 432 publications mentioning opioids to date in 2017. This is 2x 2016 and 7x 2015 number

4x increase in negative mentions of Purdue vs 2016

52% increase in negative publications on OxyContin vs 2016 with several now implying that OxyContin may have been a driver of the opioid crisis (e.g. New Yorker article)

PBM/ Payer Cigna and BCBS of FL formulary exclusions coming in the last month

Exclusion of OxyContin being framed as a public health initiative with Miami Herald positioning BCBS FL's move as "To fight opioid crisis, Florida's largest insurer stops covering OxyContin"

Payors and PBMs are now openly communicating this perception back to Purdue; "Excluding OxyContin may be the best thing we can do in current context" (Anthem)

Agencies

CDC guidelines increasingly caution against higher MMEs

ICER reported OxyContin as only having, "comparable or better" net health benefit (C+) in reducing the risk of abuse and addiction among patients

Xtampza

Xtampza label (sNDA) now has Category 2 ADP labelling for oral abuse

Cigna innovative contract changing the perception of the brand towards a "safer opioid"

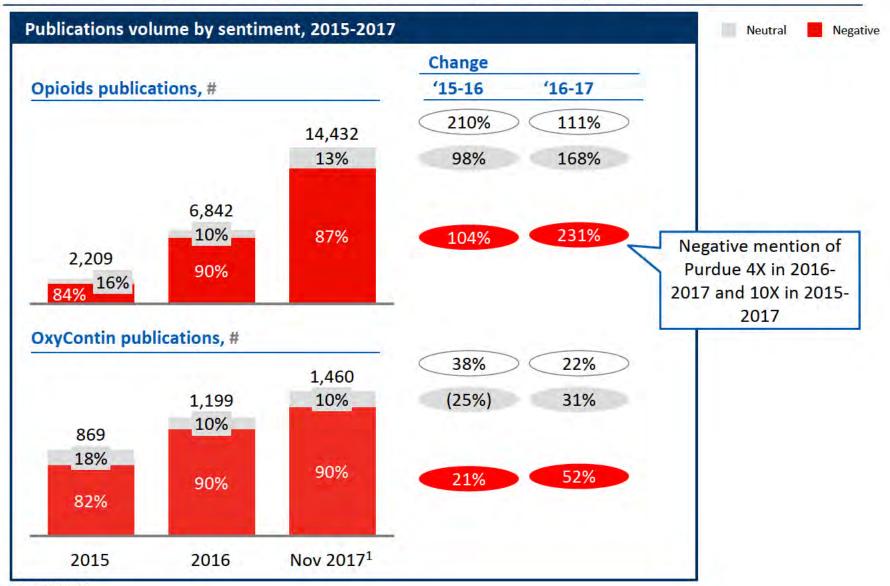
Up to ~70% rebates is qualitatively what team believes Xtampza is offering to gain advantage

State/local

128 federal, state and local lawsuits filed against Purdue this year

Media: Publications around opioids and OxyContin have increased significantly and are overwhelmingly negative





These headwind are accelerating risks for Purdue

Reputation risk: Company brand and OxyContin name is publicly associated as a cause of the opioid crisis

Exclusion risk: Further exclusions of OxyContin in 2019 are likely as payors see an opportunity for a public perception win by removing OxyContin from formulary

Share risk: Xtampza's new label and aggressive promotion adds to the misperception that Xtampza is the safer opioid and increases risk of losing share

Legal risk: Increase in negative press mentions add to the risk for further law suits by government entities looking for ways to fight the opioid crisis

WORKING DRAFT

Last Modified 1/26/2011 11:01:26 AM Eastern Standard Time Printed 1/26/2011 10:37:37 AM Eastern Standard Time

Hair testing project: working session

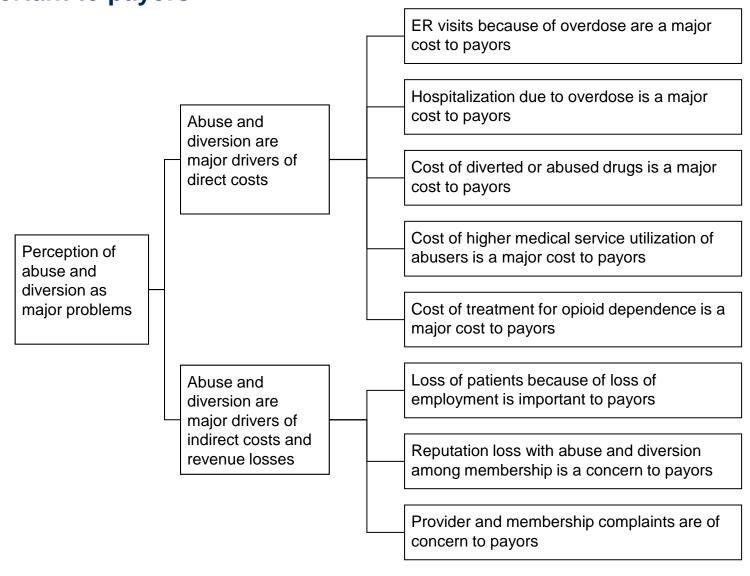


Discussion document 3 February 2011

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Issue tree: Abuse and diversion of ER schedule II opioids is important to payors



WORKING DRAFT

Last Modified 8/22/2013 1:32 PM Eastern Standard Time Printed

OxyContin growth opportunities



Progress update August 20, 2013

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The sales force transformation will likely face several key challenges

Common challenges



Reps do not see the need to change



Reps see transformation as a 'zero sum game' of winners and losers, demotivating them



Performance and excitement are difficult to sustain over the long term



Field feels inundated and paralyzed by excess of training and targeting materials

Key factors for success

- Reps understand why the new approach benefits them
- Field is involved and their buy-in is sought throughout the process
- New behavior is modeled by 'natural pilots' of highperforming reps who already behave in line with recommendations
- Transformation is sequenced to secure 'quick wins' first and gain momentum
- Reps work in teams to share success stories and build on each other's strengths
- Field competitions and rewards to motivate buy in
- Strong EXCO-level leader owns program
- Accountability throughout the organization
- Weekly time commitment of CxO and top team is "locked in" from very beginning
- Analytics group produces performance metrics in a timely manner throughout transformation
- Build in mechanisms for rep feedback and continual improvement
- HQ central team manages the program and owns deployment of targeted, synthesized training materials to field

Reps will need a full suite of tools and support

Incentive compensation

- Rep's incentive for OxyContin relative to other products aligned with Purdue's economics
- Incentive compensation also tied to adherence to target list and call volume

Managers

- Calling on high-value doctors as a consistent theme in one-on-one and group conversations
- Managers trained to train reps on the value of adhering to call list and on approaching high-value doctors that have not been called on

Successful sales rep

Peers

- Those who adhere to call list and hit required call volumes identified as 'model reps'
- Team-level programs and incentives exert peer influence on reps to change behavior
- Reps share best practices in their regions and districts

Tools and training

- New tools make it easier to achieve high-value calls (e.g., call route planner, 'points' system to weigh low-value vs high value prescriber, refreshed OxyContin messages)
- Training supports reps in approaching high-value doctors who have not been called on

Turbocharging Nucynta

Discussion with

July 20, 2011





Maximize payor pull-through – objectives, ownership and key next steps



Objectives

- Explore building an IM wide pull through system that enables appropriate share building based on managed care contracting investments that includes:
 - Tools to identify the appropriate accounts
 - Sales force equipped/trained to message and execute
 - Inclusion in the sales force incentive/monitoring system
 - Targeting that quickly adjusts to changes in market access

Ownership and next steps

- Strategic Customer Group
 - Understand feasibility/ROI of potential effort across IM
 - Develop tool that can be rapidly tested and deployed
 - Design pilot and roll out in select territories / regions
 - Identify any challenges for implementing across brands
- McKinsey
 - Organize workshop with key McKinsey experts who have implemented similar efforts in other pharmaco-s
 - Develop preliminary project plan and timeline for initiative (based on potential IM franchise interest)



Hot Spot Birmingham

| | 2463804- Birmingham N, AL | 2463806- Birmingham S, AL | 2463803- Birmingham E, AL | 3352201- Birmingham, AL | Total Hot Spot (de- duped) |
|--|---------------------------------|---------------------------------|---------------------------------|-------------------------------|----------------------------------|
| # Targets | 104 | 128 | 85 | 76 | 476 |
| % of National Nucynta 13wk TRx's | 0.32% | 1.45% | 1.12% | 0.97% | 1.7% |
| 4 wk Nucynta TRx Growth | 5% | -6% | -13% | -3% | -5% |
| 13 wk Active % | 35% | 48% | 47% | 33% | 33% |
| Ever Written % | 54% | 63% | 61% | 49% | 48% |
| Concentration (% of targets accounting for 80% TRx volume) | 13% | 16% | 17% | 11% | 11% |
| AVG SAO MS | 7.0% | 10.3% | 9.8% | 6.6% | 6.6% |

| HIGH POTENTIAL | | | | |
|-----------------------------|------|--|--|--|
| # Targets | 87 | | | |
| % of SAO 13 wk TRx's | 24% | | | |
| % of Nucynta 13 wk TRx's | 6% | | | |
| 13 wk Active % | 36% | | | |
| Ever written % | 100% | | | |
| Avg SAO MS | 3.7% | | | |

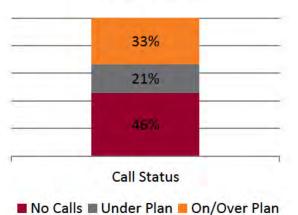
| NEW WRITER POTENTIAL | | | | |
|-----------------------------|------|--|--|--|
| # Targets | 67 | | | |
| % of SAO 13 wk TRx's | 19% | | | |
| % of Nucynta 13 wk TRx's | 1% | | | |
| 13 wk Active % | 21% | | | |
| Ever written % | 22% | | | |
| Avg SAO MS | 1.9% | | | |

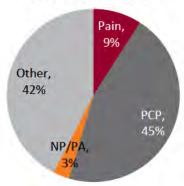
| MAINTAIN | | | | |
|-----------------------------|-------|--|--|--|
| # Targets | 221 | | | |
| % of SAO 13 wk TRx's | 57% | | | |
| % of Nucynta 13 wk TRx's | 93% | | | |
| 13 wk Active % | 51% | | | |
| Ever written % | 51% | | | |
| Avg SAO MS | 12.7% | | | |

| National Avg Targeted Nucynta MS | 3.2% |
|-------------------------------------|------|
| National Avg Active Writer % | 28% |
| National Avg Concentration | 10% |

Source: IMS Xponent & Call Activity data through 4/15/11

CPA % Targets







Hot Spot Jacksonville, FL

| | 2462906- Jacksonville N, FL | 2462907- Jacksonville S, FL | 3351805- Jacksonville W, FL CSO | 3351806- Jacksonville E, FL | Total Hot Spot (de- duped) |
|--|-----------------------------------|-----------------------------------|---------------------------------------|-----------------------------------|----------------------------------|
| # Targets | 122 | 109 | 72 | 41 | 316 |
| % of National Nucynta 13wk TRx's | 0.5% | 0.2% | 0.1% | 0.02% | 0.8% |
| 4 wk Nucynta TRx Growth | -19% | -13% | -16% | -14% | -16% |
| 13 wk Active % | 41% | 38% | 22% | 24% | 33% |
| Ever Written % | 52% | 51% | 33% | 37% | 44% |
| Concentration (% of targets accounting for 80% TRx volume) | 14% | 11% | 6% | 10% | 9% |
| AVG SAO MS | 8.1% | 7.4% | 4.5% | 2.0% | 5.9% |

| # Targets | 62 | | | |
|-----------------------------|-----|--|--|--|
| % of SAO 13 wk TRx's | 26% | | | |
| % of Nucynta 13 wk TRx's | 6% | | | |
| 13 wk Active % | 42% | | | |

100%

2.9%

HIGH POTENTIAL

Ever written %

Avg SAO MS

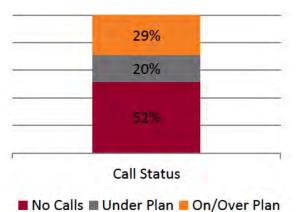
| NEW WRITER POTENTIAL | | | | | |
|-----------------------------|-------|--|--|--|--|
| # Targets | 105 | | | | |
| % of SAO 13 wk TRx's | 36.5% | | | | |
| % of Nucynta 13 wk TRx's | 4% | | | | |
| 13 wk Active % | 16% | | | | |
| Ever written % 17% | | | | | |
| Avg SAO MS | 4.0% | | | | |

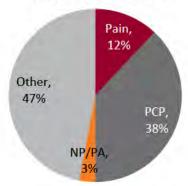
| MAINTAIN | | | | |
|-----------------------------|-------|--|--|--|
| # Targets | 154 | | | |
| % of SAO 13 wk TRx's | 37.5% | | | |
| % of Nucynta 13 wk TRx's | 90% | | | |
| 13 wk Active % | 42% | | | |
| Ever written % | 42% | | | |
| Avg SAO MS | 9.1% | | | |

| National Avg Targeted Nucynta MS | 3.2% |
|-------------------------------------|------|
| National Avg Active Writer % | 28% |
| National Avg Concentration | 10% |

Source: IMS Xponent & Call Activity data through 4/15/11

CPA % Targets







Hot Spot Miami, FL

| | 2463006- Miami, FL | 2500000 | 2463005- Miami S, FL | 3352105- Miami S, FL | 3352107- | Total Hot Spot |
|--|-----------------------|---------|----------------------------|----------------------------|----------|----------------|
| # Targets | 114 | 83 | 92 | 34 | 17 | 323 |
| % of National Nucynta 13wk TRx's | 0.2% | 0.1% | 0.08% | 0.04% | 0.02% | 0.5% |
| 4 wk Nucynta TRx Growth | 1% | -13% | -9% | 14% | -23% | -7% |
| 13 wk Active % | 17% | 41% | 23% | 29% | 41% | 26% |
| Ever Written % | 26% | 55% | 30% | 41% | 47% | 36% |
| Concentration (% of targets accounting for 80% TRx volume) | 5% | 17% | 5% | 12% | 24% | 7% |
| AVG SAO MS | 4.7% | 3.8% | 4.0% | 3.4% | 7.9% | 4.1% |

| HIGH POTENTIAL | | | | | |
|-----------------------------|------|--|--|--|--|
| # Targets | 53 | | | | |
| % of SAO 13 wk TRx's | 29% | | | | |
| % of Nucynta 13 wk TRx's | 6% | | | | |
| 13 wk Active % | 40% | | | | |
| Ever written % | 100% | | | | |
| Avg SAO MS | 0.7% | | | | |

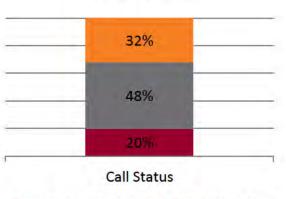
| NEW WRITER POT | TENTIAL |
|-----------------------------|---------|
| # Targets | 114 |
| % of SAO 13 wk TRx's | 48% |
| % of Nucynta 13 wk TRx's | 5% |
| 13 wk Active % | 16% |
| Ever written % | 16% |
| Avg SAO MS | 0.4% |

| MAINTAIN | |
|-----------------------------|-----|
| # Targets | 158 |
| % of SAO 13 wk TRx's | 23% |
| % of Nucynta 13 wk TRx's | 89% |
| 13 wk Active % | 29% |
| Ever written % | 29% |
| Avg SAO MS | 13% |

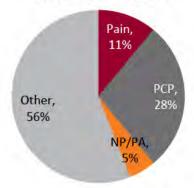
| National Avg Targeted Nucynta MS | 3.2% |
|-------------------------------------|------|
| National Avg Active Writer % | 28% |
| National Avg Concentration | 10% |

Source: IMS Xponent & Call Activity data through 4/15/11

CPA % Targets



■ No Calls ■ Under Plan ■ On/Over Plan





Hot Spot ORLANDO

| | 2463114- Orlando S, FL | 2463115- Orlando, FL | 3351904- Orlando, FL | 3351905- Orlando S, FL | Total Hot Spot |
|--|------------------------------|----------------------------|----------------------------|------------------------------|-------------------|
| # Targets | 75 | 131 | 45 | 53 | 281 |
| % of National Nucynta 13wk TRx's | 0.1% | 0.4% | 0.1% | 0.05% | 0.5% |
| 4 wk Nucynta TRx Growth | -6.5% | 0.0% | -5.1% | -2.6% | -2.4% |
| 13 wk Active % | 27% | 53% | 36% | 28% | 37% |
| Ever Written % | 43% | 66% | 44% | 49% | 52% |
| Concentration (% of targets accounting for 80% TRx volume) | 7% | 21% | 9% | 4% | 12% |
| Avg SAO MS | 3.6% | 14.0% | 10.6% | 7.7% | 8.8% |

| HIGH POTENTIAL | |
|-----------------------------|------|
| # Targets | 69 |
| % of SAO 13 wk TRx's | 30% |
| % of Nucynta 13 wk TRx's | 16% |
| 13 wk Active % | 42% |
| Ever written % | 100% |
| Avg SAO MS | 2.1% |

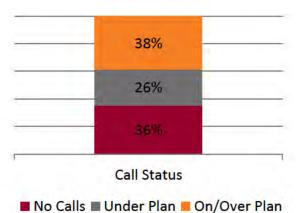
| NEW WRITER PO | TENTIAL |
|-----------------------------|---------|
| # Targets | 117 |
| % of SAO 13 wk TRx's | 59% |
| % of Nucynta 13 wk TRx's | 15% |
| 13 wk Active % | 24% |
| Ever written % | 25% |
| Avg SAO MS | 5.4% |

| MAINTAIN | |
|-----------------------------|-------|
| # Targets | 102 |
| % of SAO 13 wk TRx's | 11% |
| % of Nucynta 13 wk TRx's | 70% |
| 13 wk Active % | 53% |
| Ever written % | 53% |
| Avg SAO MS | 17.8% |

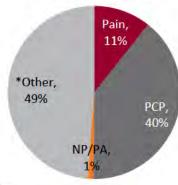
| National Avg Targeted Nucynta MS | 3.2% |
|-------------------------------------|------|
| National Avg Active Writer % | 28% |
| National Avg Concentration | 10% |

Source: IMS Xponent & Call Activity data through 4/15/11

CPA % Targets



Specialty % Targets



*Other driven by Surgery & OB/Gyn



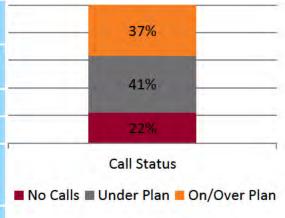
Hot Spot HOUSTON

| | 2764301- Houston, TX | 2764302- Houston N, TX | 2764303- Houston E, TX | 3653901- Houston NW, TX | 3653902- Houston W, TX | 3653903- Houston E, TX CSO | 3653904- Houston Medical Ctr, TX | 3653905- Houston N, TX | Total Hot Spot |
|--|----------------------------|------------------------------|------------------------------|-------------------------------|------------------------------|----------------------------------|---|------------------------------|-------------------|
| # Targets | 106 | 100 | 91 | 60 | 46 | 52 | 24 | 53 | 501 |
| % of National Nucynta 13wk TRx's | 0.3% | 0.5% | 0.2% | 0.04% | 0.05% | 0.01% | 0.0% | 0.01% | 1.0% |
| 4 wk Nucynta TRx Growth | 8.3% | -13.2% | 7.8% | 2.6% | 0.0% | -23.1% | 11.8% | -2.6% | -0.4% |
| 13 wk Active % | 39% | 51% | 36% | 15% | 17% | 12% | 4% | 6% | 28% |
| Ever Written % | 49% | 63% | 38% | 23% | 20% | 12% | 8% | 9% | 34% |
| Concentration (% of targets accounting for 80% TRx volume) | 14% | 18% | 10% | 7% | 7% | 8% | 4% | 2% | 9% |
| Avg SAO MS | 14.4% | 15.2% | 8.0% | 5.3% | 8.6% | 2.9% | 3.1% | 1.8% | 9.0% |

| National Avg Targeted Nucynta MS | 3.2% |
|-------------------------------------|------|
| National Avg Active Writer % | 28% |
| National Avg Concentration | 10% |

Source: IMS Xponent & Call Activity data through 4/15/11

CPA % Targets



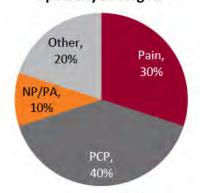
HIGH POTENTIAL

| # Targets | 45 |
|-----------------------------|------|
| % of SAO 13 wk TRx's | 19% |
| % of Nucynta 13 wk TRx's | 2% |
| 13 wk Active % | 31% |
| Ever written % | 100% |
| Avg SAO MS | 0.6% |

| NEW WRITER POTENT | |
|------------------------|---|
| | Λ |
| INCAN MAINTEIN LOTEIAT | м |

| NEW WRITER POTENTIAL | | |
|-----------------------------|-------|--|
| # Targets | 65 | |
| % of SAO 13 wk TRx's | 29% | |
| % of Nucynta 13 wk TRx's | 4% | |
| 13 wk Active % | 51% | |
| Ever written % | 51% | |
| Avg SAO MS | 14.0% | |

| 392 |
|------|
| 52% |
| 94% |
| 24% |
| 24% |
| 9.2% |
| |





Hot Spot LOS ANGELES, CA

| | 2865107- Los Angeles W, CA | 2865108- | Angeles | 3854907- Los Angeles E, CA | 3855004- Beverly Hills, CA | 3855005- Los Angeles, CA | Total Hot Spot (de- duped) |
|--|-------------------------------------|----------|---------|-------------------------------------|----------------------------------|-----------------------------------|----------------------------------|
| # Targets | 101 | 113 | 61 | 29 | 40 | 37 | 371 |
| % of National Nucynta 13wk TRx's | 0.4% | 0.3% | 0.1% | 0.01% | 0.1% | 0.05% | 0.7% |
| 4 wk Nucynta TRx Growth | -12% | -15% | -12% | -15% | -14% | -23% | -15% |
| 13 wk Active % | 50% | 37% | 20% | 7% | 25% | 30% | 30% |
| Ever Written % | 57% | 46% | 23% | 7% | 28% | 32% | 36% |
| Concentration (% of targets accounting for 80% TRx volume) | 15% | 12% | 5% | 3% | 8% | 8% | 9% |
| AVG SAO MS | 10.8% | 8.5% | 10.1% | 3.6% | 10.0% | 8.8% | 7.8% |

| HIGH POTENTIAL | | |
|-----------------------------|-------|--|
| # Targets | 37 | |
| % of SAO 13 wk TRx's | 25.9% | |
| % of Nucynta 13 wk TRx's | 5% | |
| 13 wk Active % | 49% | |
| Ever written % | 100% | |
| Avg SAO MS | 2.5% | |

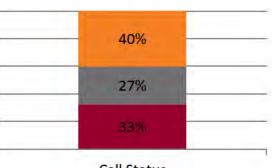
| NEW WRITER POTENTIAL | | |
|-----------------------------|-------|--|
| # Targets | 39 | |
| % of SAO 13 wk TRx's | 16.6% | |
| % of Nucynta 13 wk TRx's | 3% | |
| 13 wk Active % | 54% | |
| Ever written % | 56% | |
| Avg SAO MS | 14.8% | |

| MAINTAIN | | |
|-----------------------------|-------|--|
| # Targets | 278 | |
| % of SAO 13 wk TRx's | 57.5% | |
| % of Nucynta 13 wk TRx's | 92% | |
| 13 wk Active % | 26% | |
| Ever written % | 26% | |
| Avg SAO MS | 8.1% | |

| National Avg Targeted Nucynta MS | 3.2% |
|-------------------------------------|------|
| National Avg Active Writer % | 28% |
| National Avg Concentration | 10% |

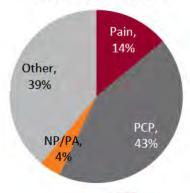
Source: IMS Xponent & Call Activity data through 4/15/11

CPA % Targets



Call Status

■ No Calls ■ Under Plan ■ On/Over Plan





Hot Spot North Jersey

| | 2160710-Edison, | 2160708- | 2160705- | 3050610- | Total Hot Spot |
|--|-----------------|------------|-----------------|------------|----------------|
| | NJ | Newark, NJ | Jersey City, NJ | Edison, NJ | (de-duped) |
| # Targets | 79 | 121 | 108 | 35 | 335 |
| % of National Nucynta 13wk TRx's | 0.3% | 0.2% | 0.2% | 0.05% | 0.7% |
| 4 wk Nucynta TRx Growth | 5% | -11% | -17% | 3% | -5% |
| 13 wk Active % | 54% | 37% | 31% | 43% | 39% |
| Ever Written % | 72% | 54% | 42% | 71% | 54% |
| Concentration (% of targets accounting for 80% TRx volume) | 22% | 12% | 14% | 20% | 15% |
| AVG SAO MS | 5.2% | 5.0% | 7.1% | 3.3% | 5.5% |

| HIGH POTENTIAL | | |
|-----------------------------|------|--|
| # Targets | 80 | |
| % of SAO 13 wk TRx's | 43% | |
| % of Nucynta 13 wk TRx's | 13% | |
| 13 wk Active % | 38% | |
| Ever written % | 100% | |
| Avg SAO MS | 1.2% | |

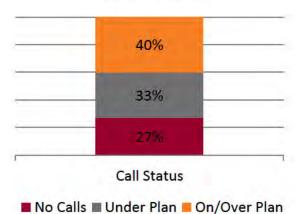
| NEW WRITER POTENTIAL | | |
|-----------------------------|------|--|
| # Targets | 109 | |
| % of SAO 13 wk TRx's | 29% | |
| % of Nucynta 13 wk TRx's | 6% | |
| 13 wk Active % | 27% | |
| Ever written % | 29% | |
| Avg SAO MS | 0.8% | |

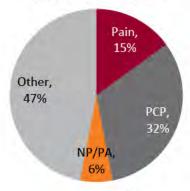
| MAINTAIN | |
|-----------------------------|-----|
| # Targets | 153 |
| % of SAO 13 wk TRx's | 28% |
| % of Nucynta 13 wk TRx's | 81% |
| 13 wk Active % | 52% |
| Ever written % | 52% |
| Avg SAO MS | 12% |

| National Avg Targeted Nucynta MS | 3.2% |
|-------------------------------------|------|
| National Avg Active Writer % | 28% |
| National Avg Concentration | 10% |

Source: IMS Xponent & Call Activity data through 4/15/11

CPA % Targets







NUCYNTA Action Plan May 10, 2011



Nucynta Action plan to "Power Ahead"

Situation: Flat TRx trend

- Growth territories offset by flat & declining territories.
- Overemphasis on select targets, underemphasis on market/brand potential

Key actions:

- Targeting tool developed & deployed to field leadership
- Hot Spot analysis & work sessions (Field, Business Analytics, Brand)
- 3. "Power Ahead" Contest (request approval)
- 4. Communications
 - Contest initiation 5/16
 - Weekly Hot Spot work sessions & other DM level engagement
 - Weekly touchpoints via Field IM News
 - FSABs

Market Insights

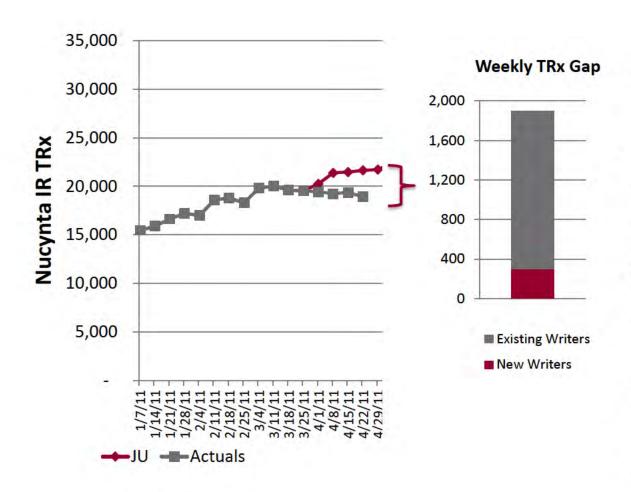
- User Study (May 20 w/ interim updates)
- SFE
- Segmentation



Executive Summary

- NUCYNTA TRx's & share are flat since week ending March 11, 2011
 - Lack of TRx growth creating a gap between actuals and forecast
- Overemphasis on promotionally sensitive customers, with TRx volume leveling off for these prescribers in March 2011
 - Leveling of over-plan targets hard to see in weekly data
 - Underemphasis on some targets, including:
 - High decile non-writers
 - Discontinued writers
 - New Writers
 - Prescribers with < national average market share
- A shift in emphasis within target customers is recommended to recapture growth and establish a broader base of writers for the future
 - Recommended lists will be provided for DM discussions

A focused effort on both existing & new writers needed to get us back on track



- Weekly TRx Gap vs forecast of 1,900 TRx's
- Two more TRx's per week per territory would get us back to forecast
- Current new targeted writers account for 300 weekly TRx's
- Once back on track, Field needs to avg one more weekly incremental TRx per month

Areas of Focus to get back to growth

HIGH POTENTIAL

- All docs who have ever written (over/on/ underplan) targets with
 national avg. SAO market share*
- Active writers w/ zero calls logged



Opportunity / Impact : Immediate Growth

| # Targets | 13K (14 per) |
|----------------|--------------|
| 13 wk Active % | 66% |
| Ever written % | 100% |
| Avg SAO MS | 1.1% |

NEW WRITER POTENTIAL

- New writers, prior 13 weeks
- Mkt Decile 4 & above never written



Opportunity / Impact : Cultivating future Growth

| # Targets | 22K (24 per) |
|----------------|--------------|
| 13 wk Active % | 19% |
| Ever written % | 20% |
| Avg SAO MS | 0.6% |

MAINTAIN

- All docs who have ever written (over/on/ underplan) targets with
- > national avg. SAO market share*
- Mkt Decile 3 & below; never written

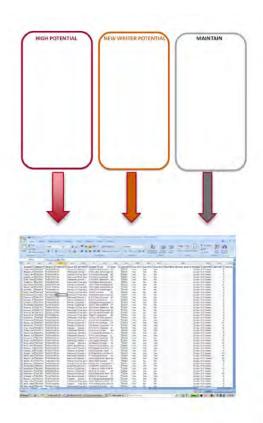


Opportunity / Impact : Maintaining base

| #1 | argets | 31K (33 Per) |
|----|--------------|--------------|
| Ac | tive % | 35% |
| Ev | er written % | 35% |
| Av | g SAO MS | 10.7% |



A hyper-focused list of target customers has been developed to help prioritize a focus back to growth



3 Tab spreadsheet filterable by:

- Pain or AI/GI
- RDT
- Decile
- Call status
- Market Share
- New writer status
- Ever written status

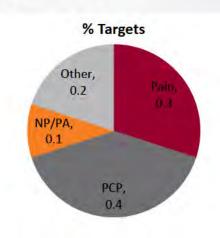
Further doc detail available in Physician Detail Report in Vital Signs

Longitudinal call & TRx data

Lists will help drive focus & discussions at the local level; metrics will be refreshed monthly with weekly data to show progress

Hot Spot One Pager

| нот ѕрот х | |
|--|-----|
| # Targets | 17K |
| % of National Nucynta | |
| 4 wk Nucynta TRx Growth | |
| 13 wk Active % | |
| Ever Written % | |
| Concentration (% of targets accounting for 80% of Hotspot Nucynta) | |



| 100000 | |
|--------|--|
| 20% | |
| 30% | |
| 20% | |
| 30% | |

On Plan

National Avg Nucynta MS

National Avg

Active Writer %

| HIGH POTENTIAL | |
|----------------------------|------|
| # Targets | 17K |
| % of SAO TRx's | |
| % of Nucynta TRx's | |
| 4 wk Nucynta TRx Growth | |
| 13 wk Active % | 64% |
| Ever written % | 100% |
| Avg SAO MS | 3.2% |

| NEW WRITER POTENTIAL | | |
|----------------------------|------|--|
| # Targets | 22K | |
| % of SAO TRx's | | |
| % of Nucynta TRx's | | |
| 4 wk Nucynta TRx Growth | | |
| 13 wk Active % | 19% | |
| Ever written % | 20% | |
| Avg SAO MS | 0.6% | |

| MAINTAIN | | |
|----------------------------|-------|--|
| # Targets | 24K | |
| % of SAO TRx's | | |
| % of Nucynta TRx's | | |
| 4 wk Nucynta TRx Growth | | |
| Active % | 15% | |
| Ever written % | 15% | |
| Avg SAO MS | 13.6% | |

Comments:



Over Plan

Hot Spots – initial reviews

| Hot Spot L | os Angeles, CA | Hot Spot Jacksonville, FL (Tallahassee) | |
|-------------------|---------------------------|--|--|
| Pain Territory 2 | 865107-Los Angeles W, CA | Pain Territ 2462906-Jacksonville N, FL | |
| Pain Territory 2 | 865108-Beverly Hills, CA | Pain Territ 2462907-Jacksonville S, FL | |
| AI/GI District 3 | 854906-Los Angeles SW, CA | AI/GI Terr 3351805-Jacksonville W, FL CSO | |
| AI/GI Territory 3 | 855005-Los Angeles, CA | AI/GI Terr 3351806-Jacksonville E, FL | |
| AI/GI Territory 3 | 854907-Los Angeles E, CA | | |
| AI/GI Territory 3 | 855004-Beverly Hills, CA | Hot Spot Houston | |
| | | Pain Territ 2764301-Houston, TX | |
| Hot Spot B | irmingham, AL | Pain Terril 2764302-Houston N, TX | |
| Pain Territory 2 | 463804-Birmingham N, AL | Pain Territ 2764303-Houston E, TX | |
| Pain Territory 2 | 463806-Birmingham S, AL | AI/GI Terr 3653904-Houston Medical Ctr, TX | |
| Pain Territory 2 | 463803-Birmingham E, AL | AI/GI Terr 3653905-Houston N, TX | |
| AI/GI Territory 3 | 352201-Birmingham, AL | AI/GI Terr 3653902-Houston W, TX | |
| | | AI/GI Terr 3653903-Houston E, TX CSO | |
| Hot Spot N | Aiami, FL | AI/GI Terr 3653901-Houston NW, TX | |
| Pain Territory 2 | 463006-Miami, FL | | |
| Pain Territory 2 | 463008-Miami SW, FL | Hot Spot North Jersey (Newark) | |
| Pain Territory 2 | 463005-Miami S, FL | Pain Territ 2160710-Edison, NJ | |
| AI/GI Territory 3 | 352105-Miami S, FL | Pain Terrii 2160708-Newark, NJ | |
| AI/GI Territory 3 | 352107-Miami, FL | Pain Territ 2160705-Jersey City, NJ AI/GI Terr 3050610-Edison, NJ | |
| | | | |
| Hot Spot C | Prlando, FL | | |
| Pain Territory 2 | 463115-Orlando S, FL | | |
| Pain Territory 2 | 463114-Orlando, FL | | |
| AI/GI Territory 3 | 351904-Orlando, FL | | |
| AI/GI Territory 3 | 351905-Orlando S, FL | | |



Nucynta (IR) User Study

- Qualitative study designed to understand the "tipping points" driving new prescribers and discontinued Nucynta prescribers.
- Two separate Nucynta cohorts chosen for study:
 - Newer prescribers, those who started prescribing during the past 13 weeks (ending April 8)
 - Discontinuing prescribers, those who had written Nucynta within the past 26 weeks (e.g., ~ Q4/10), but whose prescribing had stopped within the past 13 weeks (ending April 8)
- In-depth interviews conducted via telephone and webcam (where available) among 48 physicians and NP/PAs, evenly divided between new and discontinued prescribers.
- Sample balanced among PCPs, Pain specialists, Surgeons, and NP/PAs.
- Study in field May 9
- Topline report and debrief: May 20





Hi Susann,

Thanks again for your input here. Just realized that I had not replied to your other comments below explicitly. We have edited footnote #2 and implemented your other comments as follows. Let us know if any questions. Thanks so much again for your detailed feedback

- 1) While many parts are rooted in data, at times the article can read as op-ed, rather than factual analysis. I assume the article is/will be reviewed by Anna GB Yes reviewing., Public Sector Leadership and US/North America office managers to better evaluate that. We sent to public sector as well following this note from you, thanks for falgging
- 2) On the OUD prevalence, perhaps footnote 2 could be strengthened by providing the % they estimated actually had OUD. Updated footnote #2 (they found 4.4%)
- 3) Exhibit 5 and in the text, we are comparing the incidence of HIV and cancer with the prevalence of opioids to compare apples to apples, it should be corrected for prevalence of HIV and cancer.
- In addition the comparison made in the exhibit is not entirely "analogous", as the paper claims. Electric vehicles, HIV, cancer, are all global problems, whereas OUD is more localized. It is only natural that this is reflected in the investment numbers (even if they stem from the US, eg. I assume this includes R&D investments of US-headquartered MNCs). In addition, there are many other reasons why HIV and cancer research funding can't really be compared to that of OUD. For one, cancer is a group of multiple, very different diseases, whereas OUD is one, among others. It seems, that chart and the comparison are more thought to be provocative than providing an actually valid comparison, and I feel this is quite apparent to the reader Good point. We wanted to highlight the difference between those who need chronic healthcare intervention (eg, with HIV or OUD diagnosis) vs not (cancer diagnosis does not always require healthcare support for life). Propose the following:
- * CANCER: "1.7m new diagnoses each year; 340k premature (< age 75) deaths annually" --- new diagnoses but no survivors, as proxy for people who need health care that year
- * HIV: 1.1m individuals infected with HIV; 7k deaths annually No new diagnoses (since this is chronic disease)

REPLACEMENT MCK-HCOR-0184988

- * OPIOIDS: 4-6M people with OUD and 42k overdose deaths (edited this number as 64k is overdose deaths from any drug, >42k is opioids were present)
- 4) On innovation, one could explicitely mention investment in creating better pain drugs, or opioids with less respiratory depression and addiction risks, and providing incentives to do so. For example, why is any opioid reimbursed today that lacks some kind of FDA approved abuse resistance? Or providing transparency around highest opioid prescribers to identify outliers. (I understand we need to walk a fine line here to avoid the appearance of lobbying). Good point. We did make more explicit pain management innovation

| - | | |
|-----|--------|---|
| 100 | 179.90 | - |
| | | |

| From: Elena Mendez Escobar | | | |
|--|--|--|--|
| Sent: Tuesday, July 17, 2018 2:33 PM | | | |
| To: Susann Stuttfeld <susann_stuttfeld@mckinsey.com>; Redacted</susann_stuttfeld@mckinsey.com> | | | |
| Cc: Aamir Malik <aamir_malik@mckinsey.com>; Arnab Ghatak <arnab_ghatak@mckinsey.com>; Nicholas Donoghoe</arnab_ghatak@mckinsey.com></aamir_malik@mckinsey.com> | | | |
| <nicholas donoghoe@mckinsey.com="">; Redacted ; Julie Lane</nicholas> | | | |
| <pre></pre> <pre></pre> <pre></pre> <pre> <pre> </pre> <pre> <pre> <pre> </pre> <pre> <pre> <pre> <pre> <pre> </pre> <pre> <pr< th=""></pr<></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre> | | | |
| <razili_lewis@mckinsey.com>; Sarun Charumilind <sarun_charumilind@mckinsey.com></sarun_charumilind@mckinsey.com></razili_lewis@mckinsey.com> | | | |
| Subject: RE: New article from the opioids insights team | | | |
| | | | |
| Great, thanks for clarifying! We absolutely have that number and will add. Thanks Susan | | | |
| Elena | | | |
| From: Susann Stuttfeld | | | |
| Sent: Tuesday, July 17, 2018 2:31 PM | | | |
| To Redacted | | | |
| Cc: Aamir Malik amir malik@mckinsey.com ; Arnab Ghatak arnab ghatak@mckinsey.com ; Nicholas Donoghoe | | | |
| < <u>nicholas donoghoe@mckinsey.com</u> >; Redacted Julie Lane | | | |
| < <u>Julie Lane@mckinsey.com</u> >; Thomas Latkovic < <u>thomas latkovic@mckinsey.com</u> >; Elena Mendez Escobar | | | |
| < <u>Elena Mendez Escobar@mckinsey.com</u> >; Razili Lewis < <u>Razili Lewis@mckinsey.com</u> >; Sarun Charumilind | | | |
| <sarun charumilind@mckinsey.com=""></sarun> | | | |
| Subject: RE: New article from the opioids insights team | | | |
| Hi Redacted | | | |
| Footnote 2 says: "Massachusetts completed a study (its Chapter 55 project) to more accurately estimate the prevalence | | | |
| of OUD in the state" It would be interesting to understand, what this study came up with as the estimated OUD | | | |
| prevalence (which might be indicative for the entire country). The rest of the footnote focuses on overdosing and | | | |
| associated deaths. Since you lead into the footnote talking about a prevalence estimate, it simply piqued our interest to | | | |
| learn more. And I assume it would with other readers as well. | | | |
| But this is more a suggestion, again to strengthen a footnote. Not an absolute necessity to address. | | | |
| Best, Susann | | | |
| | | | |
| Dr. Susann Stuttfeld Global Reach & Relevance Manager Pharmaceuticals and Medical Products Practice McKinsey & Company | | | |
| susann stuttfeld@mckinsey.com | | | |
| From: Ellen Rosen | | | |

REPLACEMENT

Sent: Dienstag, 17. Juli 2018 20:24

To: Susann Stuttfeld < Susann Stuttfeld@mckinsey.com>

Cc: Aamir Malik <amir malik@mckinsey.com>; Arnab Ghatak <arnab ghatak@mckinsey.com>; Nicholas Donoghoe <nicholas donoghoe@mckinsey.com>; Kirsten Westhues <kirsten westhues@mckinsey.com>; Julie Lane sulie Lane@mckinsey.com; Thomas Latkovic thomas Latkovic@mckinsey.com; Elena Mendez Escobar@mckinsey.com; Razili Lewis@mckinsey.com; Sarun Charumilind@mckinsey.com

Subject: RE: New article from the opioids insights team

Hi Susann,

Elena and I are in the process of responding to your comments but need clarification about point #2.

As the authors acknowledge in the text, no one really knows how many Americans have OUD, given that the condition is under-diagnosed. The authors therefore developed an estimate based on what little data was available.

Is there something more specific you want us to add? If so, can you let us know what it is?

Thanks.

E

Ellen Rosen

Global Manager of Publications, McKinsey HSS Practice

From: Susann Stuttfeld

Sent: Wednesday, July 11, 2018 4:39 PM

To: Ellen Rosen <ellen rosen@mckinsey.com>

Cc: Aamir Malik <aamir malik@mckinsey.com>; Arnab Ghatak <arnab ghatak@mckinsey.com>; Nicholas Donoghoe <nicholas donoghoe@mckinsey.com>; Kirsten Westhues <kirsten westhues@mckinsey.com>; Julie Lane sulie Lane@mckinsey.com; Thomas Latkovic thomas Latkovic thomas Latkovic thomas Latkovic@mckinsey.com; Elena Mendez Escobar@mckinsey.com>; Razili Lewis@mckinsey.com>; Sarun Charumilind@mckinsey.com>

Subject: RE: New article from the opioids insights team

Dear Ellen and team

Thanks for sharing the article with the PMP practice. It is a very important and pressing topic and we are pleased with the intitiative to make change.

Overall, we believe the white paper provides a comprehensive overview of the issue at hand, and doesn't pose any particular risk to serving the clients in our practice. We do have a few points of feedback, and would like to discuss to what extent it makes sense to address those:

- 1) While many parts are rooted in data, at times the article can read as op-ed, rather than factual analysis. I assume the article is/will be reviewed by Anna GB, Public Sector Leadership and US/North America office managers to better evaluate that.
- 2) On the OUD prevalence, perhaps footnote 2 could be strengthened by providing the % they estimated actually had OUD

3) Exhibit 5 and in the text, we are comparing the incidence of HIV and cancer with the prevalence of opioids – to compare apples to apples, it should be corrected for prevalence of HIV and cancer.

In addition the comparison made in the exhibit is not entirely "analogous", as the paper claims. Electric vehicles, HIV, cancer, are all global problems, whereas OUD is more localized. It is only natural that this is reflected in the investment numbers (even if they stem from the US, eg. I assume this includes R&D investments of US-headquartered MNCs). In addition, there are many other reasons why HIV and cancer research funding can't really be compared to that of OUD. For one, cancer is a group of multiple, very different diseases, whereas OUD is one, among others. It seems, that chart and the comparison are more thought to be provocative than providing an actually valid comparison, and I feel this is quite apparent to the reader

4) On innovation, one could explicitly mention investment in creating better pain drugs, or opioids with less respiratory depression and addiction risks, and providing incentives to do so. For example, why is any opioid reimbursed today that lacks some kind of FDA approved abuse resistance? Or providing transparency around highest opioid prescribers to identify outliers. (I understand we need to walk a fine line here to avoid the appearance of lobbying).

Please reach out if you want to further discuss

Best, Susann

Dr. Susann Stuttfeld

Global Reach & Relevance Manager | Pharmaceuticals and Medical Products Practice

McKinsey & Company | Bleicherweg 30, 8002 Zurich | Switzerland

susann stuttfeld@mckinsev.com

From: Kirsten Westhues

Sent: Mittwoch, 11. Juli 2018 13:17

To: Ellen Rosen <ellen rosen@mckinsey.com>

Cc: Susann Stuttfeld < Susann Stuttfeld@mckinsey.com > Subject: FW: New article from the opioids insights team

Hi Ellen – Aamir shared this, and we are gathering our response. I personally don't see any issues, unless someone feels that the chart that shows underinvestment in Opioids is factually wrong/misleading

Going forward, can you cc us? Or if easier just ping over anything that needs PMP input to Susann and me first and we take care of leadership approval

From: Aamir Malik Sent: 11 July 2018 02:24

To: Nicholas Donoghoe <nicholas donoghoe@mckinsey.com>; Susann Stuttfeld@mckinsey.com>;

Arnab Ghatak <arnab ghatak@mckinsey.com>; Kirsten Westhues <kirsten westhues@mckinsey.com>

Subject: FW: New article from the opioids insights team

Thoughts?

From: Ellen Rosen

Sent: Tuesday, July 10, 2018 5:47 PM

To: Aamir Malik <aamir malik@mckinsey.com>

Cc: Julie Lane < Julie Lane@mckinsey.com>; Thomas Latkovic < thomas latkovic@mckinsey.com>; Elena Mendez Escobar

<<u>Elena Mendez Escobar@mckinsey.com</u>>; Razili Lewis <<u>Razili Lewis@mckinsey.com</u>>; Sarun Charumilind

<sarun charumilind@mckinsey.com>

Subject: New article from the opioids insights team

Hi Aamir,

Attached is the latest paper from our opioids insights team. They plan to release the paper on their website.

Please let us know if you have any concerns about it.

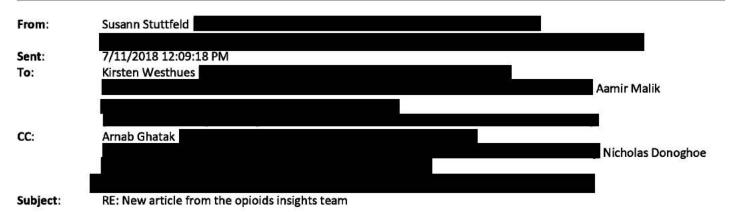
Thanks.

E

Ellen Rosen
Global Manager of Publications, McKinsey HSS Practice

REPLACEMENT MCK-HCOR-0184988.000004





I agree with Kirsten's assessment that this is gearing towards lobbying. I assume if HSS, reputational risk (Anna GB), Public Sector and the US office manager sign off on this, this is a non-issue. Also overall, the tone and insights are very opinion-driven, but that is a call HSS needs to make.

However, I do feel that the comparison in figure five (comparing investment into OUD vs eclectric cars, cancer and HIV) is not entirely correct. These "analogous" (and I challenge that word) challenges are global, whereas OUD is more localized. Hence I feel like the comparison is not apples to apples, and can be interpreted as questioning the level of investments made in these areas (vs highlighting the need to invest more into OUD). It also invites the thought that multiple stakeholders (including pharmacos) are setting their R&D priorities inadequately. There are multiple other arguments one can make about not comparing cancer or HIV research to the opioid crisis (or the level or drug research needed vs adjusting treatment), but I assume we don't need to get into that. Overall, this is a minor point in the article though, and no real emphasis on pharma companies (and therefore our clients) is really placed.

So in total, I see limited risk, at least through the PMP lens.

Aamir, Arnab, let us know your thoughts and Kirsten and I can follow up with the team

Best, Susann

| Dr. Susann Stuttf | eld | |
|-------------------|---|------------------------|
| Global Reach & Re | elevance Manager Pharmaceuticals and Medical Products | Practice |
| | any Bleicherweg 30, 8002 Zurich Switzerland | NONCOPTO PART PROPERTY |
| Direct: | Mobile: Redacted Fax: | |

From: Kirsten Westhues

Sent: Mittwoch, 11. Juli 2018 13:14

To: Aamir Malik <aamir_malik@mckinsey.com>

Cc: Susann Stuttfeld <Susann_Stuttfeld@mckinsey.com>; Arnab Ghatak <arnab_ghatak@mckinsey.com>; Nicholas

Donoghoe <nicholas_donoghoe@mckinsey.com>

Subject: RE: New article from the opioids insights team

Please enjoy your time off (and moving you to bcc)

I have just had a read of the document. In style, it's indeed more of an op-ed or one could even say a lobbying paper, though it is very much fact based. This is in the end a decision for the HSS Practice to take, in my view. The lobbying is to a large extend targetting the US healthcare payors and providers.

REPLACEMENT MCK-HCOR-0185301

The question for PMP is whether we feel our Pharma clients are appropriately represented. The paper makes the case that there is insufficient "innovation" in the system, both in terms of treatment protocols for opioid prescriptions, but also on the Pharma/research side. They make the case that while eg HIV and Cancer affect far fewer people than Opioid dependency, research spend is much smaller.

If we don't have a problem with that fact per se, I do not see any issues.

From: Nicholas Donoghoe Sent: 11 July 2018 11:58

To: Aamir Malik <aamir malik@mckinsey.com>

Cc: Susann Stuttfeld <Susann Stuttfeld@mckinsey.com>; Arnab Ghatak <arnab ghatak@mckinsey.com>; Kirsten

Westhues < kirsten_westhues@mckinsey.com>

Subject: Re: New article from the opioids insights team

Redacted

But my first quick reaction is the strongest portions have direct data and analysis to support them so wonder if there is a shorter version that keeps everything firmly grounded in a strong factbase to avoid appearance of a more broadly reaching op-ed style article. Depending on intended audience it also seems you could go deeper on some of the subtopics in dedicated articles while a shorter exec style summary of key facts that hit strongest points upfront. But that maybe more stylistic, I am sure they considered this. Let me know if helpful to follow up with Ellen or others directly

Redacted

Nicholas

On Jul 11, 2018, at 3:23 AM, Aamir Malik aamir malik@mckinsey.com wrote:

Thoughts?

From: Ellen Rosen

Sent: Tuesday, July 10, 2018 5:47 PM

To: Aamir Malik <aamir malik@mckinsey.com>

Cc: Julie Lane < Julie Lane@mckinsey.com>; Thomas Latkovic < thomas latkovic@mckinsey.com>; Elena Mendez Escobar

< Elena Mendez Escobar@mckinsey.com>; Razili Lewis < Razili Lewis@mckinsey.com>; Sarun Charumilind

<sarun charumilind@mckinsey.com>

Subject: New article from the opioids insights team

Hi Aamir,

Attached is the latest paper from our opioids insights team. They plan to release the paper on their website.

Please let us know if you have any concerns about it.

Thanks.

E

Ellen Rosen

Global Manager of Publications, McKinsey HSS Practice

REPLACEMENT MCK-HCOR-0185301.000001

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REPLACEMENT MCK-HCOR-0185301.000002





Indeed, have a great time

On the article, overall its fine. A few thoughts:

1)on the OUD prevalence, perhaps footnote 2 could be strengthened by providing the % they estimated actually had OUD

2)exhibit 5 and in the text, we are comparing the incidence of HIV with the prevalence of Opioids – that's not really fair, the point is correct but we should use the prevalence # for HIV

3)on innovation, seems odd to not mention investment in creating better pain drugs, or opioids with less respiratory depression and addiction risks. On that, there could be a point made that the government and private payors could definitely do more to encourage a marketplace. For example, why is any opioid reimbursed today that lacks some kind of FDA approved abuse resistance?

4)Another simple idea that any state could do is to actually publish its highest opioid prescribers – they could have done this years ago and those that are outliers would feel some pressure to justify their prescribing. I'm honestly surprised no newspaper hasn't done this already.

Arnie

Arnab Ghatak Senior Partner McKinsey & Company

From: Aamir Malik

Sent: Wednesday, July 11, 2018 7:37 AM

To: Nicholas Donoghoe <nicholas_donoghoe@mckinsey.com>

Cc: Susann Stuttfeld <Susann_Stuttfeld@mckinsey.com>; Arnab Ghatak <arnab_ghatak@mckinsey.com>; Kirsten

Westhues < kirsten_westhues@mckinsey.com>

Subject: RE: New article from the opioids insights team

Redacted Thanks for the quick input. Now please stop working
- Aamir

From: Nicholas Donoghoe

Sent: Wednesday, July 11, 2018 6:58 AM

To: Aamir Malik <aamir malik@mckinsey.com>

Cc: Susann Stuttfeld <Susann Stuttfeld@mckinsey.com>; Arnab Ghatak <arnab ghatak@mckinsey.com>; Kirsten

REPLACEMENT MCK-HCOR-0185700

Westhues < kirsten westhues@mckinsey.com>

Subject: Re: New article from the opioids insights team

Redacted

But my first quick reaction is the strongest portions have direct data and analysis to support them so wonder if there is a shorter version that keeps everything firmly grounded in a strong factbase to avoid appearance of a more broadly reaching op-ed style article. Depending on intended audience it also seems you could go deeper on some of the subtopics in dedicated articles while a shorter exec style summary of key facts that hit strongest points upfront. But that maybe more stylistic, I am sure they considered this. Let me know if helpful to follow up with Ellen or others directly when back Redacted

Nicholas

On Jul 11, 2018, at 3:23 AM, Aamir Malik <aamir_malik@mckinsey.com> wrote:

Thoughts?

From: Ellen Rosen

Sent: Tuesday, July 10, 2018 5:47 PM

To: Aamir Malik <aamir malik@mckinsey.com>

Cc: Julie Lane < Julie Lane@mckinsey.com >; Thomas Latkovic < thomas latkovic@mckinsey.com >; Elena Mendez Escobar

<<u>Elena Mendez Escobar@mckinsey.com</u>>; Razili Lewis <<u>Razili Lewis@mckinsey.com</u>>; Sarun Charumilind

<sarun charumilind@mckinsey.com>

Subject: New article from the opioids insights team

Hi Aamir,

Attached is the latest paper from our opioids insights team. They plan to release the paper on their website.

Please let us know if you have any concerns about it.

Thanks.

E

Ellen Rosen

Global Manager of Publications, McKinsey HSS Practice

<20180501 Core beliefs - opioids_v07 (for review).docx>

REPLACEMENT MCK-HCOR-0185700.000001

Message

From: Laura Moran

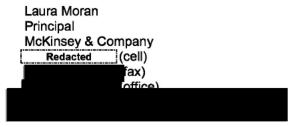
Sent: 9/11/2013 1:34:33 PM

To: John Goldie
CC: Arnab Ghatak
Subject: Re: John Stewart

I think that is a brilliant idea. let's think carefully about what we want to ask, I'm most curious to see..

- if high writers even noticed this. :)
- -what portion of their current oxy patients (or all ER patients) are "severe" vs. moderate to severe, what portion are "as needed"
- -if they think this will change their prescribing behavior (I'm guessing they'll say they already use it like this)

thx



From: John Goldie/NYO/NorthAmerica/MCKINSEY

To: Amab Ghatak/NJE/NorthAmerica/MCKINSEY@MCKINSEY, Laura Moran/NJE/NorthAmerica/MCKINSEY@MCKINSEY

Date: 09/11/2013 09:30 AM Subject: Re: John Stewart

Looks like basic takeaways are:

- Class-wide labeling change applying to ER opioids (not IR)
- Should only be used for severe pain, not moderate-severe pain
- Should be reserved for patients for whom alternative treatment options are ineffective, not tolerated, or inadquate
- Not indicated for 'as needed' pain relief
- Requring drug companies to conduct further studies (postmarket)
- boxed warning for pregnant women

Do you want us to set up any prescriber interviews on this?

John

John Goldie McKinsey & Co 55 e52nd St New York, NY, 10022 0: Redacted

From: Amab Ghatak/NJE/NorthAmerica/MCKINSEY

To: Laura Moran/NJE/NorthAmerica/MCKINSEY@mckinsey, John Goldie/NYO/NorthAmerica/MCKINSEY@mckinsey,

REPLACEMENT MCK-HCOR-0218748

Date: 09/11/2013 09:00 AM Subject; Re: John Stewart

What is the FDA announcement?

On Sep 11, 2013, at 1:51 PM, "Laura Moran" <

This is great news.

Outreach re: FDA makes sense. David is apparently on rep rides, we'll talk tho in core team and will make sure to get a few mins one on one to discuss FDA.

From: Rob Rosiello

Sent: 09/11/2013 08:11 AM EDT

To: Arnab Ghatak; Laura Moran; Martin Elling

Subject: John Stewart

Spoke with john...

- FDA announcement has flooded him with emails and Board calls...we discussed that the announcement actually contains a number of positives...he said he's send us some materials...we should think about some prescriber interviews to help inform purdue's reaction...worth reading emails and WSJ article Mallin forwarded early this morning...
- 2. He has confirmed they want help...but wants to come back with specifics on exactly where...(he is still talking to individual executives about specifics of our support)...while not a full green light, do think this is the best you get with John...I asked if I should release the team and he said "no"
- 3. He has not reviewed Arnie's 3am email with revised memo and detailed answers to his questions...gave him overview and asked him to call back with any questions...
- 4. Think we are a go... worth reaching out to russ, david, (I'll get to ed and bill)...to see how we might help with latest FDA announcement...
- 5. All good

Rob

From: "Mallin, William" [

Sent: 09/11/2013 10:18 AM GMT To: Rob Rosiello; Arnab Ghatak

Subject: FW: WSJ: FDA Toughens Warning on Pain Drugs; Agency Cites Serious Risks Associated With Pills Such as OxyContin

I am sure you have heard about this by now. Instead of forwarding the 760 e mails, I thought the WSJ summary was succinct and obviously, this will need to be taken into plans going forward. I wonder if Pixar has "challenges" like this?

REPLACEMENT MCK-HCOR-0218748.000001

Bill

Bill

From: Weingarten, Brianne

Sent: Tuesday, September 10, 2013 9:24 PM

To: Mallin, William; Burke, Dr. Brian; Richiger, David

Subject: Fwd: WSJ: FDA Toughens Warning on Pain Drugs; Agency Cites Serious Risks Associated With

Pills Such as OxyContin

Begin forwarded message:

From:

Date: September 10, 2013, 9:14:12 PM EDT

To:

"Haddox, Dr. J.

David"

"Weingarten, Brianne"

Subject: Fwd: WSJ: FDA Toughens Warning on Pain Drugs; Agency Cites Serious Risks Associated With Pills Such as OxyContin

The Wall Street Journal also says indication restricted to severe pain only.

Sent from my iPhone

Begin forwarded message:

From:

Date: September 10, 2013, 8:19:46 PM EDT

To:

Ce:

Subject: FW: WSJ: FDA Toughens Warning on Pain Drugs; Agency Cites Serious Risks Associated With Pills Such as OxyContin

REPLACEMENT MCK-HCOR-0218748.000002

From:

Sent: Tuesday, September 10, 2013 7:05 PM

To: BM Pain Core Team

Subject: WSJ: FDA Toughens Warning on Pain Drugs; Agency Cites Serious Risks Associated With Pills Such

as OxyContin Importance: High

The Wall Street Journal Online

FDA Toughens Warning on Pain Drugs; Agency Cites Serious Risks Associated With Pills Such as OxyContin

By Thomas Catan

10 September 2013

Federal regulators ordered tougher warnings on widely used painkillers responsible for what they called an epidemic of addiction and overdose deaths, saying the drugs should be reserved only for severe pain.

The Food and Drug Administration said that long-acting forms of "opioid" painkillers, such as OxyContin, should be used only when there is no alternative. Opioids are powerful narcotics that come from the same family as morphine and heroin.

Until now, the FDA had said the drugs were appropriate for the treatment of "moderate-to-severe" pain. The new drug label drops the word "moderate" and says it should be used only to manage "pain severe enough to require daily, around-the clock, long-term treatment."

The drugs will also contain a new boxed warning that cautions about using the drugs while pregnant. U.S. hospitals have seen a surge in newborns dependent on the drugs, according to a study in the Journal of the American Medical Association.

FDA Commissioner Margaret Hamburg said the agency was taking the action "to combat the crisis of misuse, abuse, addiction, overdose and death from these potent drugs that have harmed too many patients and devastated too many families and communities."

REPLACEMENT MCK-HCOR-0218748.000003

The new warnings only relate to extended-release forms of the drugs, which are often prescribed for months or years to treat chronic pain. They don't affect immediate-release forms, which include Vicodin or Percocet and are often used to treat acute pain, such as after surgery.

Extended-release painkillers like OxyContin have been heavily abused since they were introduced in the late 1990s, because they contain a much bigger load of the drug, designed to trickle into the bloodstream over several hours. Drug abusers learned to break the time-release mechanism by crushing, snorting or injecting the pills to get all the drug at once for a heroin-like high.

The labeling changes are the latest tentative effort by the FDA to get a handle on an explosion of overdose deaths from painkillers without restricting them for legitimate pain patients. More than 16,500 people died after taking the drugs in 2010, according to the Centers for Disease Control and Prevention, more than from heroin, cocaine and all illegal drugs combined.

Immediate-release forms of the drugs are also commonly abused and can also lead to addiction and overdose death even in patients who take them as prescribed.

The FDA is also considering whether to tighten restrictions on hydrocodone products like Vicodin.

Drug-safety campaigners had petitioned the FDA to make more sweeping changes to painkiller labels by including a suggested maximum dose and duration of treatment. The FDA declined to do so, saying there was insufficient evidence to set specific limits.

Instead, the FDA will require drug companies to conduct further research into the drugs' long-term safety. All sides in the debate agree that there is little scientific evidence at the moment to show the benefits of long-term use of such painkillers outweigh the risks, and for which patients.

Blaine Davis of Endo Pharmaceuticals Inc., which makes Opana ER, said, "The FDA decision will ensure that the medicine remains available to appropriate patients."

Patient advocates generally welcomed the changes but doubted they would have a major impact on the problem. Lynn Webster, president of the American Academy of Pain Medicine, said some changes, such as requiring more research and warning pregnant women, were long overdue. But, he said, "I am doubtful this will have much impact on diversion or the number of overdose deaths."

Write to Thomas Catan at thomas.catan@wsj.com and Timothy W. Martin at timothy.martin@wsj.com

Dow Jones & Company, Inc.

Description: Description:

https://bmsource.bm.com/Resources/BrandSite/EmailSigImages/logo2.png

Associate, Healthcare Practice

222 Merchandise Mart Plaza, hicago, IL 60654

Office: Redacted

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[IMAGE]

Personal and Confidential Memorandum

To Georges Desyaux Cc Redacted

From Arnab Ghatak Date March 28, 2014

EY2014 Impact Summary

Redacted

HIGHLIGHTS OF THE PAST YEAR

Over the last year, I aimed to make a step change in the scale of my impact and in my operating model.

Redacted

 Purdue: Rebuilt the CST, working side-by-side with new CEO and entire EC to reshape entire company – from \$3B brand (\$500M+ opportunity) to a-a new launch product regulatory approach to a radically different overall corporate strategy to a new launch product regulatory approach

Redacted

 Purdue: EDs – Laura Moran, Jeff Smith; Directors – Rob Rosiello, Martin Elling



Purdue

I first served Purdue Pharma nearly 10 years ago and re-committed to serving them two years ago – a struggling mid sized company but I saw enormous opportunity to help and wanted to rebuild the CST. Since late spring last year, I have invested heavily to architect and lead an amazing transformation journey with their entire executive team, from fundamentally changing in their sales structure and go to market approach to get over \$500M in opportunity to working with R&D leaders to prepare for their next meeting with the FDA to now working directly with their new CEO on a complete overhaul of the company.

- As part of re-committing, I met with their entire executive leadership team and discussed a range of projects and unfortunately the politics had become so intense that multiple confirmed studies were halted.
- Last spring their executive team finally reached out for the project we had long wanted a full on diagnostic of their lead brand, OxyContin (\$3B), which was 95% of their sales. I led the diagnostic effort, working closely with their sales and marketing leaders and reporting to a cross-functional executive team. Quickly we uncovered profound problems from growth that was unrecognized to a field force that lacked direction to messaging that avoided their strongest

- arguments. Everywhere we looked we found opportunity over \$500M. Given some peculiar dynamics with a lame duck CEO, we were requested to write a memo to the board. We were then invited to present our findings privately to the board (the first time in our 10 year history of service) and I led the discussion, engaging them for three hours. This meeting cemented our credibility and the board strongly encouraged us to continue our work.
- Post the conclusion of the diagnostic, I knew that the effort to rebuild the
 commercial effort would be a transformative journey. I brought in the leader of
 our PMP Sales service line, Laura Moran, to lead the work. In parallel, the
 client set up 13 teams with 60+ client team members. The goal was a full
 rollout at the National Sales Meeting (NSM) at the end of January.
- Six weeks prior to the NSM, Purdue finally announced a new CEO Mark Timney from Merck. Rob Rosiello and I immediately began to build a relationship through private meetings and had multiple meals with him before he officially began. Mark wanted help on doing a fundamental overhaul corporate strategy but he made it competitive, with key board members having a long relationship with Bain and strong aversion to McKinsey from prior experiences. Still we invested heavily in strengthening our relationship and in the quality of the proposal. Finally at the NSM after observing the successful rollout of the new field approach, he approved a program of five studies, including choosing us for the strategy.
- The strategy is still very much ongoing but we have worked on nearly a daily basis with him and his team, including an offsite in our NYO where he met 6 other McK partners an explicit goal of ours to change his narrow view of our Firm based on his experience at Merck. We have become close private counselors to him and are confident that the bold strategy we are developing will chart a new course for the company.

CREATING HIGH IMPACT CLIENT OPPORTUNITIES

Redacted

6

Purdue is another example of my entrepreneurial risk taking and persistence. Despite many challenges over the years, I have led a rapid transformation journey – from the rep's daily call plan to the CEO's strategy. I have brought in multiple colleagues with deep expertise to accelerate impact at scale and frankly re-built an energized CST.

Redacted





LOOKING FORWARD

I am very excited about the years ahead and hope to build on my record of entrepreneurial impact. A few themes and milestones stand out as areas of focus:

· Continue to grow and expand my four CSTs' dual impact and people missions

Redacted

 Purdue: Continue to broaden the CEO's perception of our Firm and support him on his largest deals; build new relationship with Canada CEO; coordinate the CST globally (LatAm, Asia, Europe); continue to coach John Goldie's to designation as our core AP

WORKING DRAFT

Last Modified 9/5/2013 12:52 AM Eastern Standard Time Printed

OxyContin growth opportuities



Update with John Stewart September 5, 2013

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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 2 nd 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 PDFs to >14 PDFs
 - These physicians increased OxyContin TRx by **39%**, compared to a 17% **decline** in physicians that continued to receive <4 PDEs

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 B generated |
|-----------------------|
| 7% more growth |

by making more Oxy P1s on high decile doctors

despite operating in a similar territory to Sales rep A

| % change in Oxy TRx, H1 2012 vs H1 3013 | 0% | 7.3% | |
|---|----|------|---|
| Oxy P1s on high decile MDs (5-10) per mo | 23 | 28 | • |
| State | TN | TN | |
| # of high-decile docs in territory | 70 | 56 | |

McKinsey & Company | 4

+7300 bp

+22%

Wildfire establishes significant upside for successful teams

Place exceptional returns within reach of top performers to pull superstars out of regular champions







Significant rewards

- Unrivaled recognition for top champion team
- Winning teams get cash prize that is significant and meaningful



Big league play

- CEO to engage champions in the board room
- Weekly "league tables" across the company, garnering direct leadership attention

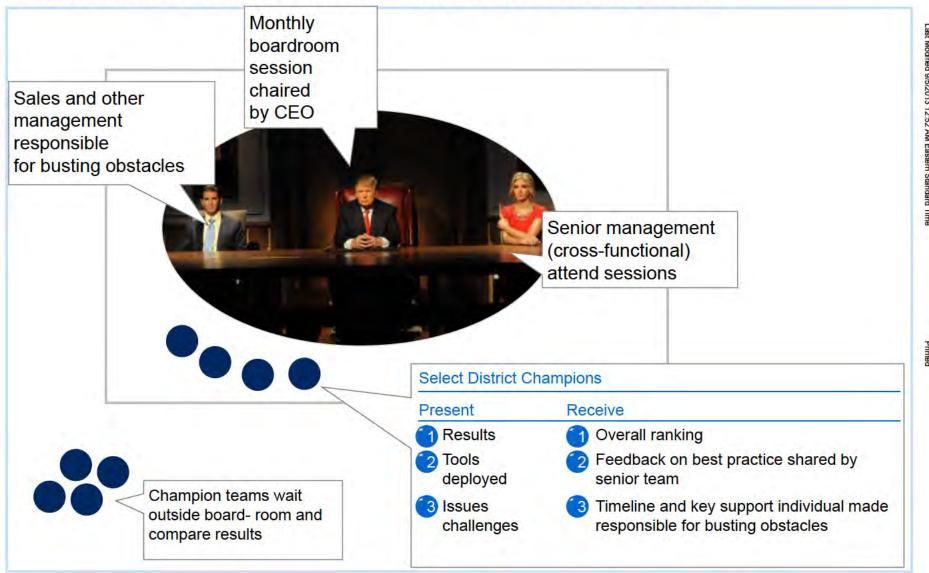


Celebrity status

- Champions become "household" names across company; enormous prestige attached to participation
- Spirit of competition

'Once in a lifetime' opportunity to springboard to success!

Wildfire all comes together through CEO 'boardroom meetings' where results are celebrated and bottlenecks are addressed



Field feedback from previous field activation efforts

FIELD FEEDBACK

Common themes from field

Quotes

It drives goal attainment

"This allows me to focus on quality over quantity."

a result I am won the President's club."

 Cuts through the data to find docs with most incremental upside

"You are pulling in all this for us. Giving us something really simple that focuses on where the incremental growth is"

"I started heavily focusing on my top physicians last year and as

"This process built off of existing opportunities and focuses on where we have incremental opportunity

 Reps are excited to own their outputs

"These are specific to our territory. VERY exciting!"

"This is exactly how we think but first time seeing actual data. Now I can tailor my approach"

Reps ready to hit the ground running

"Having the time to work at the meeting was PERFECT! It allowed us to act."

"I have everything I need to do today."

"Action plan x Buy in = Results"

Note: this field force achieved ~5% revenue growth above plan in 9 months in a mature primary care portfolio

From: Laura Moran Sent: 5/7/2014 3:28:41 AM

To: Rob Rosiello Sent: Pasha Sarraf Senti Sen

Bill is meeting w/ Mark tomo (wed) evening to discuss consulting support requirements going forward

He has taken the pages we made for him on the mck projects and created his own pages from them. he was still drafting them this afternoon, but they don't include both standard rate and proposed, only the final amounts. he's also made minor changes to the comments and added in the ongoing projects too. we only partially discussed this meeting but I am going to try to meet w/ him directly after the 8am mark BD&L meeting to better understand the story he is planning to tell and ensure he understands our perspective on where the ongoing needs are.

He also shared that in the EC meeting this morning, someone on EC ("who talks out of both sides of his mouth") was complaining that mck has been here a long time and things haven't improved. Mark actually stood up for us and said, this is not true. there was no ADF strategy until McK put it on paper, there was no E2E until McK came in and identified the needs. Bill was really happy about that. (btw I think the person complaining was Ed, who I failed to see one on one this week, tho have been spending time w/ him on the financing w/ Goldie). I will try to see Ed too tomo morning.

will connect further tomo

Laura Moran
Principal
McKinsey & Company
(cell)
(fax)
office)

REPLACEMENT MCK-HCOR-0336217