Prevention Track

Use this Research in Your Communication and Social Media Campaigns

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Disclosures

Rosanne Hoffman, MPH; Ronne Ostby, MA; Paula Rausch, PhD, RN; and Carla Blanton have disclosed no relevant, real, or apparent personal or professional financial relationships with proprietary entities that produce healthcare goods and services.



Disclosures

- All planners/managers hereby state that they or their spouse/life partner do not have any financial relationships or relationships to products or devices with any commercial interest related to the content of this activity of any amount during the past 12 months.
- The following planners/managers have the following to disclose:
 - Kelly J. Clark, MD, MBA, FASAM, DFAPA -Consulting fees: Braeburn, Indivior
 - John J. Dreyzehner, MD, MPH, FACOEM Salary: **Amerigroup Healthcare Insurance (spouse)**



Learning Objectives

- Describe a range of useful research activities to inform a thoughtful communication campaign.
- Outline key messaging preferred by 45-54 year old adults and 25-34 year old adults that focus on the risks and reality of opioid overdose.
- Identify multiple media channels for strategic placement of messaging preferred by 45-54 year old adults and 25-34 year old adults for a launch of materials.
- Discuss the positive and negative effects that conversations occurring on social media platforms is having on opioid-related issues.
- **Explain how the insight gained from these online conversations can** inform efforts to address the opioid epidemic and improve public health.
- Recognize how social media can be used to communicate about the opioid epidemic, including to correct misperceptions about these drugs and related matters.



Development of CDC's Prescription Opioid Communications Awareness Campaign

Recommendations from Research Activities

Ronne Ostby, Vice President, ICF Rosanne Hoffman, Senior Manager, ICF



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- Rosanne Hoffman, MPH, has disclosed no relevant, real or apparent personal or professional financial relationships with proprietary entities that produce health care goods and services.
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Agenda

- Session objectives
- Research activities
 - 1. Research questions
 - 2. Triads with 40-55 year olds
 - 3. Social media assessment
 - 4. Mainstream media assessment
 - 5. Literature review
 - 6. Environmental scan
 - 7. In-depth interviews with community stakeholders about lessons learned from existing efforts
 - 8. Triads with 25-35 year olds
 - 9. In-depth interviews about state communication needs
 - 10. Health Belief Model
- Campaign development

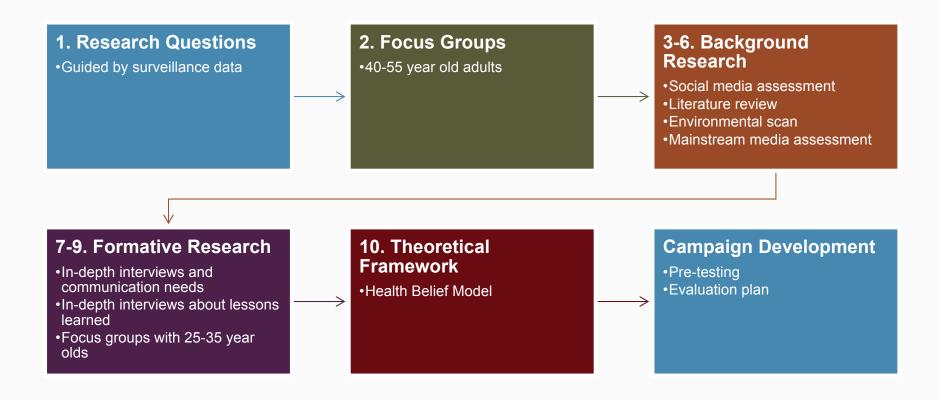


Session objectives

- 1. Describe a range of useful research activities to inform a thoughtful communication campaign.
- 2. Identify key messaging preferred by 45-54 year old adults and 25-34 year old adults that focus on the risks and reality of opioid overdose.
- 3. Identify multiple media channels for strategic placement of messaging preferred by 45-54 year old adults and 25-34 year old adults for a launch of materials.



Formative and campaign development research





1. Research questions

- 1. What communication campaigns exist to prevent prescription opioid use and misuse?
 - Have these programs been evaluated?
 - Have best practices been identified?
- 2. What are the audiences' information preferences and needs related to prescription opioids?
 - What are their preferred formats to receive information on this topic?
 - Who are their trusted sources for health information and guidance?
- 3. What influences audiences' behaviors related to prescription opioid use and avoidance?



Other key research questions

Examples of additional research questions include:

- Which research activities are right for your budget and your available staff?
- Has this audience been engaged in communication campaigns on other health topics?
- What are the primary concerns of the audience related to opioids?
- What do they know about opioids? What are their information gaps?
- Who influences their behavior? What barriers and motivators influence their behavior?



2. Triads with 40- to 55-year-olds

- 9 respondents from OK, KY, UT, WV
 - Expressed differing opinions about role of health care providers (HCPs) in current epidemic.
 - Encouraged communicating choice to public about whether or not to take opioids.
 - Felt helpless about how to end the epidemic and the toll it is taking on their communities.
- Differences in responses among groups reflected:
 - Complexity of issue.
 - Need for more research.
- Decided to take step back to explore other audiences with less exposure to messaging.



Strategic tips for conducting triads

- Do any research you can.
- Hold discussion groups.
- Implement informal, low-cost research.
- Have a long-term vision.
- Be flexible.
- Consider knowledge, attitudes, behaviors, and social norms.



Sample triad questions

How safe do you think prescription opioids are?

Why do you think someone would use prescription opioids?

Where did you learn about prescription opioids?

How do people obtain prescription opioids?

Who in your environment supports a decision not to use prescription opioids?



3. Social media assessment

- People know others who are addicted to or overdosed from opioids.
- Naloxone response programs are used and needed.
- Many local and national efforts are working to combat epidemic.
- **Needing prescription drugs to** cope with pain.
- **Conversation mostly on Twitter.**
- Difficulty balancing chronic pain and the risk of opioids.
- Complexity: any social media communication efforts will be complicated.





4. Mainstream media assessment

Mainstream media generally addressed one of these topics:

- Prevention strategies (e.g., naloxone, needle exchange programs, state task forces, conferences, and policies).
- Scope of the epidemic (e.g., the national prevalence, local statistics, stories of crimes that involved opioid use, personal stories of addiction and overdose).
- Opioid overdose and linkages to heroin.
- The responsibilities and perspectives of HCPs related to opioid prescribing.



Strategic tips for social and mainstream media assessments

- Look for key words.
- Review multiple channels.
- Identify prominent content.
- Consider timing.
- Consider local news sources.
- Remember names.

Tip: Take advantage of no-cost media monitoring tools available online.



5. Literature review

- Adult women were unfamiliar with "opioids."
- College students tend to get opioids and opioid information from friends.
- Rural populations are at greater risk for opioid use.
- Low perceived harmfulness of opioid use by young people.
- High motivations to experiment with opioids, especially among college students.
- Extreme events, such as overdose by a friend, can influence decisions to avoid or quit opioid use.
- Health care settings offer an opportunity for improving education and increasing awareness of risks of opioid use.
- Communication regarding opioid overdose is an emerging area of research.



Strategic tips for literature reviews

- Scan for existing systematic reviews, literature reviews, and scoping reviews.
- Look for free databases.
- **Expand your search terms, if necessary.**
- Develop partnerships. Local universities may be able to support research.
- Include relevant books and book chapters.
- Remember to include "grey" literature—materials and research produced outside of academic publishing—as they can offer valuable information.



6. Environmental scan

- Reviewed 14 organizations' websites.
 - Diverse audiences and perspectives.
 - Most target HCPs.
 - General public receive articles or studies about misused opioids.
- Reviewed 3 recent campaigns with similar goals.
- Assessed potential partner resources.



Strategic tips for an environmental scan

- Learn from others who have embarked on similar efforts.
- Look for overlap and avoid duplicating efforts.
- Find partners to help fill the gaps.



7. In-depth interviews about lessons learned from existing efforts

- Spoke with CADCA partners about priority areas:
 - Prescription opioids are top priority.
 - Parallel communication efforts across coalitions.
 - Partnerships with law enforcement and stakeholders in community.
 - Outreach to public should be through multiple channels, and to multiple audiences (e.g., senior living centers, real estate agents, outreach to parents and youth).
 - Designing a communication effort targeting 25-35 year olds is complex.



8. Triads with 25- to 35-year-olds

- 9 respondents from CA, PA, and WI.
- "Opioids" was a familiar term, but specific brand names were more well-known.
- Audience was aware of risk of addiction and overdose possibilities (more so addiction).
- No one had stereotypes of a typical "user."
- Respondents feared 1) death, 2) loss of job and financial independence.
- HCPs play a part in raising awareness of addictive risk:
 - Perception of risk is low (due to HCPs, a trusted source, continuing to prescribe).
- This is a community issue and community responsibility.
- Reach people before they use.



9. In-depth interviews about state communication needs

- Spoke with key state partners from AZ, CA, NE, OH, WI.
- Data guides state efforts and allocation of resources.
 - Communication needs:
 - Pre-tested resources.
 - Tools to share with HCPs.
 - Resources to help change social norms around expectations of pain management.
 - Easily downloadable tools and resources that states can customize and repurpose.
 - 25-35 year olds are a complex target audience; 45-54 year olds are most in need of communication.



Strategic tips for stakeholder interviews

- Make it convenient for respondents to participate.
- Push your campaign on multiple channels.
- Conduct informal stakeholder research.
- Ask questions to learn about audiences, their information needs, motivators, and barriers.

Key questions to ask:

- What do you think is the most important information the audience needs to understand about this issue?
- What communication barriers should be kept in mind?



10. Health Belief Model

| Construct | Description | 25- to 35-year-olds | 45- to 54-year- olds | Potential change strategies |
|-----------------------------|--|--|--|---|
| Perceived Susceptibility | Belief that audiences are susceptible to prescription opioid overdose | It can happen to anyone People with sports injuries or risk factors for substance use disorder are more susceptible | It can happen to anyone | Use testimonials to tell realistic, authentic stories Foster a sense of vulnerability; help audiences recognize themselves and relate to stories |
| Perceived Severity | Belief that overdose has serious consequences | Fear of death Loss of a job/ financial independence Consequences to physical appearance Morbidity (e.g., kidney failure, long-term health problems) | Fear of death Fear of not being present for children Fear of losing a family member Fear of losing control of your life | Explore the inclusion of a list of things that audiences don't want to lose Explore how to portray these factors in a meaningful way |



Campaign Development

- Conducted two rounds of pre-testing:
 - IDIs (Adults, ages 25-30).
 - Triads (Adults, ages 45-54).
- Tested draft concepts before developing full pieces.



CONCEPT #1: "SEE YOURSELF" Version 8 6/21/2016 TRT: 00:00:45:04

Concept #1: "See Yourself" Animatic



Strategic tips for pre-testing

- Use research findings.
- Test concepts, not the final product.
- Conduct virtual groups that are low-cost and easier for participants to make time for and join.
- Keep an open mind.

Key questions to ask:

- What do you like about this concept?
- What don't you like?
- What would make it better?



Preferred messaging

- 45-54 year old adults and 25-34 year old adults prefer messaging that focus on the risks and reality of opioid overdose.
- Messaging addresses both recreational use and/or medical use of opioids for pain management.
- Campaign tagline: "It only takes a little to lose a lot."
- Campaign reality statement: "Prescription opioids can be addictive and dangerous."



Preferred media channels

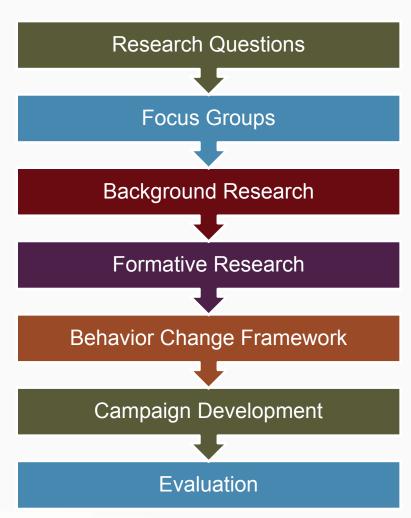
Media channels for strategic placement of messaging include:

- TV ads
- Radio ads
- Digital (banner ads, videos, etc.)
- Billboards
- Posters
- Newspaper ads



Summary of research steps leading to campaign development

- Campaign approach: Real stories.
- Campaign goals: Increase awareness and knowledge about the risks of prescription opioids, and increase the number of people who avoid recreational use of opioids or medical use of opioids for pain management.
- Message: "It only takes a little to lose a lot."





Rx Awareness: Pilot Campaign Elements

- **Digital**
 - 30-second testimonial videos
 - Banner ads
 - Search ads
 - 5-second bumper video ads
- Radio
 - 30-second ads
- Out of home
 - **Billboards**
 - **Posters**
- A small-scale pilot campaign launched in December 2016 and ran for 10 to 14 weeks in nine counties in four states: OH, OR, RI, WV.



Use this Research in Your Communication and Social Media Campaigns

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Exploring social media to aid understanding of knowledge, attitudes and behaviors related to opioids

- Introduction and project background
- Why social media analysis?
- Research questions
- Methods
- Results
- Conclusions
- Lessons learned
- What social media monitoring and analysis can do
- Social media research limitations
- Thoughts about doing it yourself



Introduction and Project Background

- Combating opioid misuse, abuse & addiction has long been an FDA priority
 - Targeted, science-based, multi-pronged approach addressing misuse, abuse
 & addiction at critical points in opioid development and use
 - In February 2016, FDA launched a comprehensive Opioid Action Plan
- FDA's CDER wanted to understand how to most efficiently and effectively develop and focus communication efforts aimed at raising awareness and educating the public
 - Developed a detailed work statement w/contract to RTI International
- FDA team included staff involved w/ risk communication research, strategic communications & Office of Surveillance & Epidemiology

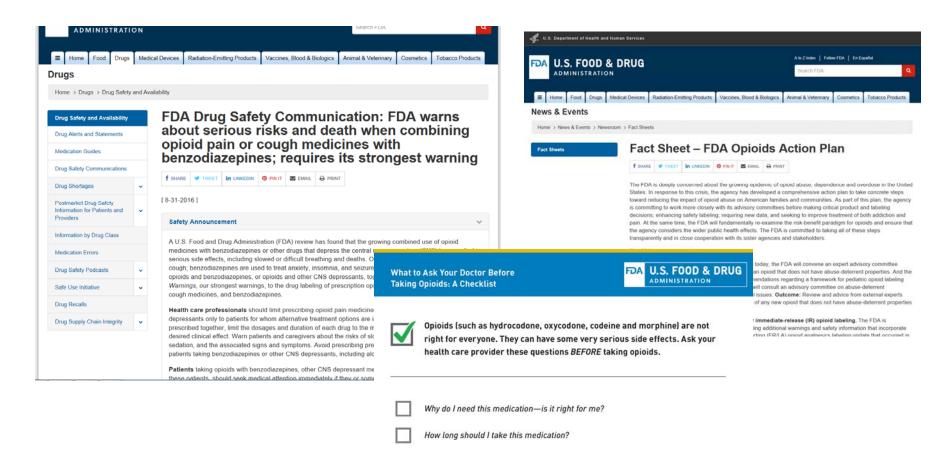


Introduction and Project Background

- In early 2015, we undertook a broad communication research project to explore knowledge, attitudes, and practices about opioid use, misuse and abuse in several key stakeholder audiences
- Research included several elements and methodologies designed to build on each other:
 - Environmental scan, including literature review and collection of all secondary data, studies, and campaigns, and a social media analysis
 - 3 focus groups with FDA staff; and 19 in-depth interviews with leaders of FDA and 8 other federal government agencies involved in opioids
 - External qualitative and quantitative data collection among opioid users,
 friends and family of users, the general public and opioid prescribers



Examples of FDA's Opioids Communications





Why Social Media Analysis?

- As of January 2014, 74% of Americans who were online reported using social media, including Twitter, Facebook, and blogs
 - 70% of Facebook users and 38% of Twitter users access the platforms daily
 - Social media is an important venue for sharing and discussing opinions, ideas & info, including about health
 - Individuals often share information they would not disclose otherwise
 - Conversations can be followed in "real" time



Why Social Media Analysis?

- 7 main uses of SM research for health communications
 - Providing health information on a range of conditions
 - Providing answers to medical questions
 - Facilitating patient-patient and patient-provider dialogue
 - Collecting data on patient experiences and opinions
 - Delivering health interventions, promotion & education
 - Reducing stigma
 - Providing online consultations
- Therefore, it is important to consider SM when trying to understand any health communication topic
- However, analyses of SM conversations about opioids are rare, and the range of topics, platforms & timeframes is limited



RQ1: What are various stakeholder groups saying about opioids, including comments related to abuse deterrents, antidotes, and IR and ER/LA opioids and what specific language are they using to say it?

RQ2: How do the platform/channel and the type of media outlet affect what is being said among each of these stakeholder groups about opioids, their misuse/abuse, and FDA's opioids regulation?



RQ3: How do consumers view the role of opioids in controlling pain (acute and chronic), especially non-cancer-related pain? What are members of various stakeholder groups, discussing about how to most appropriately balance the risk of misuse and abuse and the need for these drugs to patients in pain?

RQ4: What is the sentiment of various stakeholders toward FDA related to opioids, and where do they see FDA's role/responsibilities in the opioids issue (including related to misuse and abuse) and in what context(s) are these issues being discussed?



RQ5: Where do various stakeholders see drug company's roles/responsibilities or those of the industry more broadly?

RQ6: What discussion is occurring among various stakeholders related to opioids about other drug-related federal agencies, the White House/president, Congress/politicians and others?

RQ7: How do consumers view the roles and responsibilities of HCPs in the prescribing of opioids?



Additional RQs from the second analysis:

RQ: What are consumers saying about the kinds of information they're looking for about opioids and where do they say they have or want to find it?

RQ: What is being said by and about people who misuse/abuse/are addicted to opioids? What are the discussions about stigma or shame associated with taking opioids?



RQ: What are people saying about the discussions patients are having with HCPs about opioids, especially related to risks?

RQ: What conversations are occurring related to tolerance, dependence, withdrawal, overdose, and Medication Assisted Treatment (MAT)?

RQ: How did each of the following affect the discussions:

- Obama Administration announcement of additional opioid actions (March 29, 2016)
- FDA's Opioid Action Plan announcement (February 2016)
- Singer Prince's death (April 21, 2016; however, the opioid determination was concluded on June 2)



Methods

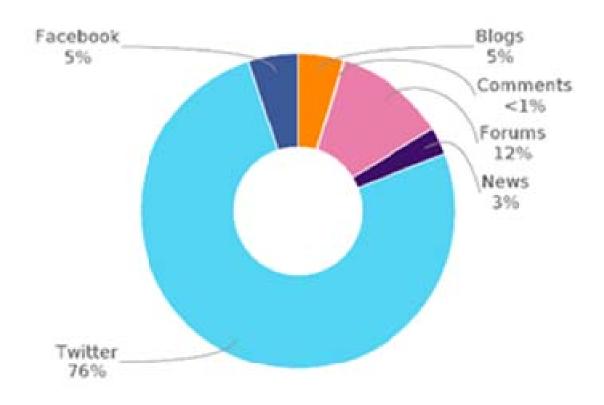
- Analysis 1
 - Blogs, Facebook, forums, news, and Twitter
 - July 31, 2010, to March 19, 2015
 - Crimson Hexagon's ForSight platform
- Analysis 2
 - Twitter, Facebook, Instagram, news, and general [YouTube and video, blogs, forums]
 - January 1 to June 30, 2016
 - Brandwatch Analytics Social Media Listening Tool



Overview

- Constant conversation about opioids occurred on social media and digital news sites over the 5 years of the analysis
 - A total of 23,766,564 posts were captured
 - Unique posts ranged from about 6K to a peak of almost 44K per day
- About 10% of all opioid content could be identified as coming from authors of various ages:
 - 21% were 17 or younger
 - 35% were 18 to 24
 - 9% were 25 to 34
 - 34% were 35 or older
- The sample of the total population discussing opioids that could be identified by age tended to be older than the general SM population
- 49% of identifiable authors were male

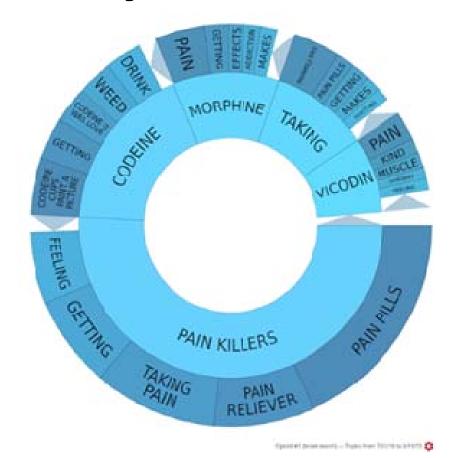




Source Breakdown by Content

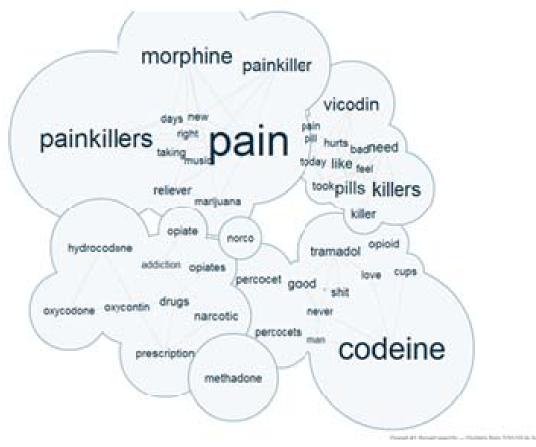
Opioid #1 Broad seach) -- Source breakbarn from 7/31/10 to 2/11/15 💢





All Opioid-related Content from All Social Media and Digital News Sources (July 31, 2010–March 19, 2015)





Word Clusters for All Opioid-related Content from All Social Media and Digital News Sources (July 31, 2010–March 19, 2015)



RQ1: What are people saying about opioids

- A common theme among news media outlets was the national epidemic of misuse or abuse
 - Deaths from overdoses and prescription opioid dependence leading to heroin use
 - News content was often framed using words such as 'police', 'overdose death', 'federal study', and 'new report shows'



RQ1: What are people saying about opioids

- Most of the consumer conversations focused on personal or family day-to-day experiences
- Across sources, "pain killer" was by far the most common way of referring to opioids
 - "Opioids" was one of the least common ways, along with terms such as "pain relievers," "narcotics,"
 "opiates," or "pain pills"



RQ1: What are people saying about opioids

- IR or ER/LA opioids were not commonly discussed or differentiated by any source or platform
 - However, comments suggest many consumers recognize there are differing strengths and mechanisms of action
- Opinions about naloxone for opioid overdose treatment were overwhelmingly positive
 - Opinions were more polarized related to other similar drugs, i.e., Suboxone (combo naloxone and buprenorphine) and buprenorphine alone



RQ2: Effect of platform on conversation content





RQ2: Effect of platform on conversation content

- Opioid misuse and abuse were more frequently discussed on blogs, forums, and news sites
- Conversations that mentioned FDA were more frequent on blogs and news sites
- References to HCPs' roles and responsibilities, NIH, DEA, and police and law enforcement were also more common on blogs and news sites
- About 25% of all news coverage mentioning opioids was found to address opioid misuse and abuse



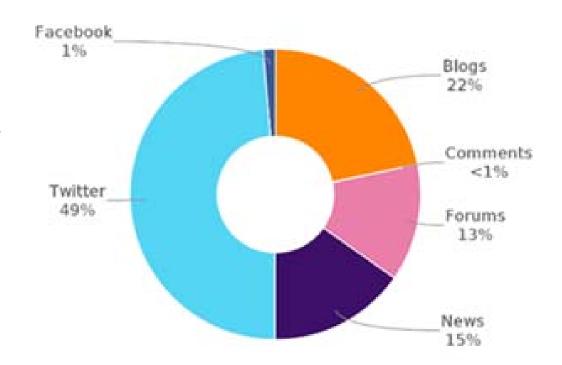
RQ3: Views about opioids

- Public sentiment appeared largely negative
- Many top news outlets and many consumers expressed skepticism that the benefits outweighed the risks relative to alternatives
- Some reacted against the negative sentiment, saying that opioid regulation may seriously impact the lives of people who need them to function



RQ4: Conversation about FDA

Accounted for less than .1% of all SM content



Opiciel #4 (the PG4) — Source Straukstown from 7/31/10 to 3/19/15 🗯



RQ4: Conversation about FDA

- Public sentiment to FDA regarding opioids was mixed
- Most common themes
 - FDA should do more to protect citizens from opioid harm
 - FDA should stop approving potentially dangerous new opioids
- Public sentiment was particularly harsh toward the approval of Zohydro
- FDA's regulatory actions were mentioned
 - Approving new drugs, label changes, clinical trials, and new drug applications



RQ5: Sentiment toward drug companies

- Public sentiment was universally negative
- Many blamed drug companies for the abuse and misuse of opioids
- Many expressed anger or frustration about companies' profiting as many were being hurt



RQ6: Sentiment toward other gov't agencies

- At least one government agency was mentioned in more than half of all news stories about opioids (51.7%) and 28.6% of content found in blogs
- The White House/president & VA lead news mentions
- Studies and reports on opioid use, overdose, deaths, and the opioid epidemic were the focus of agency mentions, particularly in the media
- Posts commonly expressed that agencies weren't doing enough or that what they were doing was ineffective



RQ7: Views on HCP responsibilities

- 4.2% of content mentioned HCPs and their opioid prescribing
- Digital news sites and blogs were the most frequent sources for conversations about HCPs and opioids
- Among news outlets, most posts mentioning HCPs referred to opioid-related criminal investigations, lawsuits or HCP arrests
- Consumers posted about personal experiences with an HCP
 - Many tweets expressed HCP over- or under-prescribing
 - Many tweets expressed concerns about the competence or knowledge of an HCP regarding opioids



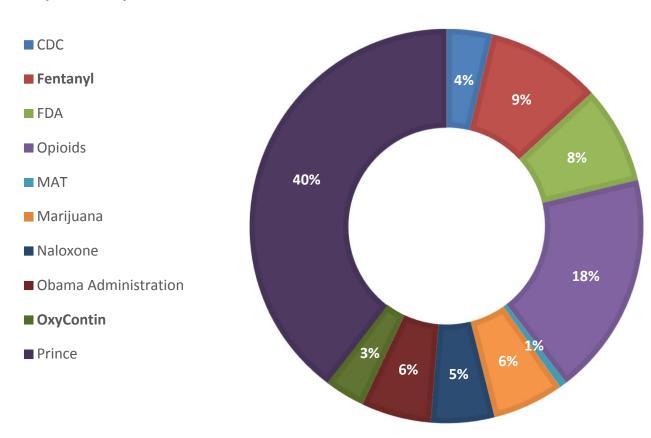
3 notable differences arose

- 40% of conversations concerned Prince's death
 - Peak mentions of opioids occurred on June 2, 2016, when it was revealed that Prince died of an overdose on Fentanyl
 - 60,944 tweets that day
- Intense debate emerged on opioid regulation versus preserving opioid access for chronic pain sufferers
- Substantial increase in posts about FDA (8%)



Top Twitter Topics

Top Subtopics





- After suspicion Princes' death was likely due to an accidental opioid overdose:
 - More content posted about the dangers of opioid addiction
 - More media articles highlighting the opioid epidemic
- Posters prescribed opioids long-term for chronic pain began to raise several fears, including that:
 - They would be stereotyped as abusers
 - That HCPs would seek alternative solutions that may be in- or less effective

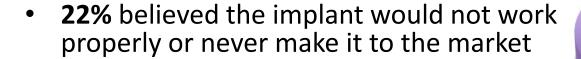


- The top FDA-related story was buprenorphine implant approval to treat opioid dependence
 - Received 1,446,380 impressions and 365 retweets
- Users also posted negative comments about the FDA's regulation of opioids
- Posts included more comments about DEA and "Big Pharma"

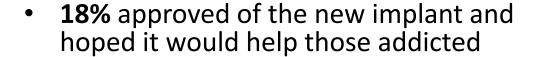
Facebook: Reactions to buprenorphine approval

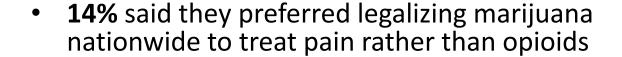


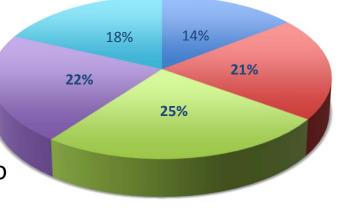
 25% believed 'government' (FDA) and 'Big Pharma' approved the implant because of potential profit

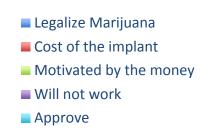


 21% were concerned with the high cost of the implant and whether they or others who needed it would be able to afford it









NOTE: Themes and percentages based on analysis of a random sample of 200 data points about buprenorphine approval



Conclusions

- The constant conversation about opioids over the 2 time periods studied suggests monitoring and analyzing these conversations can provide insight into thoughts and opinions about opioid issues
- Most SM conversations related to personal experiences rather than about official actions or responsibilities, so clearly defining the objectives of the monitoring and analysis up front are key
- Analyzing what people share and discuss on SM can help uncover what people know, misunderstandings that need to be corrected, personal experiences, and self-reported behavior
- Because SM is shared in a spontaneous environment in which people engage daily, the conversation may be more natural



Conclusions

- SM have potentially promising applications for understanding and addressing the opioid epidemic, but the potential for inaccurate information and other drawbacks must be considered.
- For us, these SM findings were part of a broad environmental scanning process undertaken as part of our formative research and were intended to inform our primary data collection activities
 - They helped identify areas for in-depth exploration in consumer
 FGs and interviews with prescribers, e.g.:
 - Terminology and language
 - Misperceptions
 - Understanding of FDA roles



Lessons Learned

- We weren't able to get the more detailed qualitative insights we were hoping for
- Starting with well-crafted research questions and a complete list of search terms is key to effective data collection, sorting and analysis
- The majority of content came from Twitter, which was the least reliable for our purposes
- Not all SM data is publicly available, which can significantly change the nature of the conversation
 - In 2012, only about 28% of Facebook content was public



Lessons Learned

- SM analysis can provide a "snapshot in time"
- Machine-based sentiment analysis is unreliable
- SM research is common, but it's still far from a science and is constantly changing
- All the machine-based platforms are different, and they all have limitations
- You get a lot of "junk"



What SM Monitoring & Analysis Can Do

- Provide data for both formative and evaluative research
- Discover insights about your audience(s)
- Uncover trends related to your topics of interests
- Inform business and communication messaging and strategies, as well as primary research



Limitations of SM Research

- Not able to address research questions in detail
 - Can't reliably be used in isolation; should be used in conjunction with other primary and/or secondary methodologies
- Can't base conclusions on it
- It can't be duplicated
- Often can't tell who's posting or identify demographic data about posters



Thoughts about Doing It Yourself

- Start by monitoring and analyzing the content on your own SM accounts and/or accounts of other similar organizations
- Use Google alerts to track what's being said about your organization or specific topic(s) of interest
- Many free tools are available for tracking SM analytics on your own sites, e.g. Buffer, Cyfe
- Some monitoring and analysis platforms allow you to pay for a single or a small number of analyses, which can help keep costs down



Questions?

Contact: Paula.Rausch@fda.hhs.gov





THANK YOU

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