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Introduction and Summary of Results

BeneCard Prescription Benefit Facilitator (PBF) is a full-service, independent pharmacy benefit manager (PBM) that provides programs that deliver clinically-driven cost savings.

Fully integrated at the point of sale through BeneCard's advanced, proprietary claims system, the company's comprehensive suite of clinical oversight programs proactively identifies waste and inappropriate and dangerous care. These programs maximize positive healthcare outcomes, drug safety, and proper use of medications.

Opioids are controlled substances used to treat chronic and acute pain. Though they provide benefits to some patients experiencing chronic pain, they can cause serious harm and death because of their addictive nature when used inappropriately. Over the past two decades, opioids have become a go-to solution to address post-surgical pain, as well as to relieve cancer pain. Overutilization trends have now led to significant increases in opioid addiction and death across the nation. Examples of medications in this therapeutic category include fentanyl, hydrocodone, hydromorphone, meperidone, methadone, morphine, oxycodone and oxymorphone.

BeneCard's state-of-the-art, proprietary claims processing platform provides proactive, industry-leading oversight to help address and prevent such dangerous overutilization.

The Vydahl Group, an independent, leading healthcare data and analytics company, reviewed BeneCard's opioid management through the company's Fraud, Waste and Abuse (FWA) program. To accomplish this review, Vydahl conducted an opioid claims analysis, based on a robust set of data provided by BeneCard.

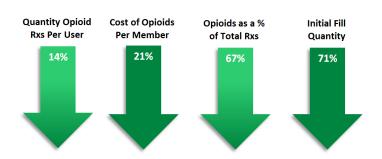
While the opioid crisis is now national news, BeneCard has been ahead of the curve, effectively managing opioid prescriptions since 2009.

Vydahl's findings, which are summarized in this document, validate that BeneCard's FWA program provides substantial savings and improved quality of care.

Through the 20-month period ending in August of 2017, the cost per covered member for opioid medication has been reduced by 21% per member per month for BeneCard clients. This result is primarily due to a 14% reduction in the quantity of opioid prescriptions per opioid-utilizing member. Overall, opioids as a percent of total prescriptions have declined by more than two thirds.

In early 2017, BeneCard introduced a leading approach to addressing addiction, well in advance of its competition. At that time, BeneCard reduced its standard quantity limit for opioids to five days at initial fill. This resulted in a more than 71% reduction in initial fill quantities. This approach eliminates waste and protects patients and their family members from increased risk factors for opioid addiction.

Results from BeneCard's Opioid Utilization Management Programs

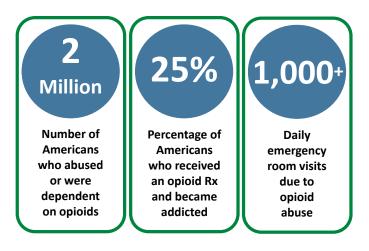






Overview: Background on the Opioid Epidemic

What the Epidemic Looks Like:



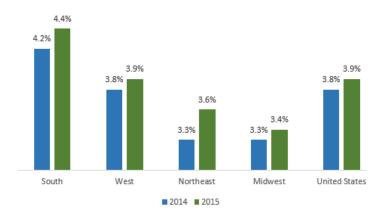
Data sourced from: Rudd RA, Seth P, David F, Scholl L. (2016, Dec 16) Increases in Drug and Opioid-Involved Overdose Deaths - United States, 2010-2015.

Retrieved from: http://dx.doi.org/10.15585/mmwr.mm655051e1

Utilization of opioids in the U.S. continues to increase year after year. Until recently, the opioid crisis was a largely unacknowledged killer, thriving within a complex healthcare system. By 2017, however, the opioid epidemic had entered the public consciousness, attracting national attention in the media and at all levels of government.

In the United States, drug overdose deaths continue to increase, with a majority of drug overdose deaths (66%) related to opioid use. The number of opioid overdose deaths (including both prescription opioids and heroin) multiplied five times in the period spanning 1999 to 2016. More than 600,000 people died from drug overdoses from 2000 to 2016. On average, 115 Americans die every day from an opioid overdose.³

Opioid Overdose Death Rates



Age-adjusted deaths per 100,000 individuals for natural and semisynthetic opioids from 2014 to 2015, by census region of residence.

Data Sourced from: CDC/NCHS, National Vital Statistics System, Mortality. CDC Wonder, Atlanta, GA: US Department of Health and Human Services. https://wonder.cdc.gov

The White House Council of Economic Advisers (CEA) published a national report in November of 2017, stating that the total cost of the opioid crisis has reached \$504 billion, including the value of lives lost to the epidemic. This equals 2.8% of the gross domestic product. The numbers are based upon a revised methodology of analysis, which included both the impact of healthcare expenditures and earnings lost due to fatalities, as well as the impact of valuable activities in life other than those that are work-related. These numbers are a significant increase from the \$79.9 billion calculated from 2013 values and adjusted for inflation to 2015 levels.





In 2017, the Center for Disease Control and Prevention (CDC) released a report on opioid prescribing characteristics and their relationship to the potential for long-term opioid abuse. Researchers found that the probability of long-term opioid use increases most sharply in the first days of therapy, particularly after seven days, and to an even greater degree when one month of opioids has been prescribed. This risk levels off after approximately 12 weeks of therapy. Rates of long-term use were relatively low in patients who had at least one day of opioid therapy, with just 6% of these patients still on opioids one year later. The rate increased significantly when patients were prescribed eight days or more of prescription opioids, with 13.5% of these patients still taking opioids one year later. When patients were prescribed opioids for 31 days, 29.9% were still using prescription opioids one year later.5

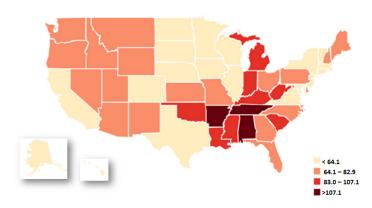
Once the issue of opioid overutilization was officially recognized as a national epidemic in 2017, programs to combat its strength and scope began to take shape across the healthcare industry.

Solutions: Opioid Epidemic – BeneCard Stays Ahead of the Curve

While the opioid crisis is now national news, BeneCard has been actively managing opioid prescriptions since 2009, when it unveiled its internally developed, state-of-the-art claims processing platform. This includes strict concurrent drug utilization reviews, prior authorization protocols, and quantity limits to proactively control utilization, as well as comprehensive reporting and analysis to support retrospective reviews for safety. Through its enhanced management of opioid medications, BeneCard has helped to control inappropriate opioid utilization, helping plan sponsors to protect their members.

As an initial national solution, the Centers for Disease Control and Prevention (CDC) published its "Guidelines for Prescribing Opioids for Chronic Pain" in 2016.⁴ According to *Health Affairs*, these guidelines have led to a cost savings of approximately \$15,000 per patient per year.² Given the statistics around today's opioid epidemic, merely following the CDC guidelines is not enough. To provide comprehensive patient safety measures, BeneCard has developed programs that go beyond the CDC guidelines to prevent fraud, waste, and abuse, and to guide safe and appropriate prescription opioid utilization. These are described in the summary of BeneCard's programs.

Prescribing practices for opioids vary greatly from state to state, which results in a wide range of regional differences. Since there is a direct link between prescribing rates and opioid abuse, the CDC established its guidelines for opioid prescribing to normalize these prescribing habits.



Data sourced from: https://www.cdc.gov/drugoverdose/data/statedeaths.html

Health Affairs also notes that better prescription opioid management is possible when PBMs automatically apply opioid management strategies to plan designs, with an option for the plan sponsor to opt out if they do not wish to use the standard protocols.² This type of setup includes automatically applying safeguards such as quantity limits, step therapy, and starter dose programs aimed at ensuring appropriate opioid dispensing.

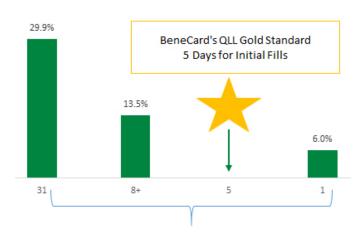




Based on the available research, BeneCard applied tougher rules to clinical controls for opioid utilization by implementing a 30-day limit on opioid prescriptions at both retail and mail order. The clinically-advanced PBM subsequently added a starter dose program that limits initial fills to a five-day supply where state laws have not already strictly limited the amount.

These programs are automatically applied as a standard element across BeneCard's book of business to control opioid addiction levels and abuse. Clients may opt out if they wish to implement different controls; however, the goal of BeneCard's programs is to reduce the risk of addiction and keep members safe by minimizing the potential for long-term reliance on opioids.

Addiction Rate by Initial Fill Quantity



Average Days Supply of Initial Fill

Data sourced from: Shah A, Hayes CJ, Martin BC. (2017, Mar 17) Characteristics of Initial Prescription Episodes and Likelihood of Long-Term Opioid Use - United States, 2006–2015. Retrieved from: http://dx.doi.org/10.15585/mmwr.mm6610a1

Data Analysis and Validation

Overall Vydahl Testing Parameters:

Vydahl reviewed the statistics for overall clinical results from all pharmacy claims for all groups individually and in aggregate. The results of Vydahl's analysis are detailed below.

Discussion and Analysis of BeneCard PBF's Opioid Management Through Fraud, Waste, and Abuse Prevention

BeneCard has developed policies and clinical oversight programs to address fraud, waste, and abuse (FWA) in a manner that is consistent with State and Federal guidelines.

BeneCard has stated that it is committed to improving the healthcare system, ensuring the integrity of its clients' plans, and keeping members safe by detecting, addressing, and preventing instances of fraud, waste, and abuse. This is evident in the foundation of its system and claim processing rules, which were designed to provide thorough clinical oversight at the point of sale before medications are dispensed, helping to prevent issues before they occur.

The BeneCard claims processing system flags suspicious activity at the pharmacy – the point of sale. Flagged claims require review, and cannot be pushed through by the dispensing pharmacist before appropriate action is taken. In some cases, the dispensing pharmacist may be able to address the situation themselves, making corrections when warranted, to ensure that the claim is handled properly. For example, the pharmacist can verify at the counter that an appropriate amount of medication is being dispensed. In other instances, a BeneCard pharmacist must review the issue with the prescriber.





This process determines whether the medication is safe and appropriate for the member, and rules out potential fraud, waste, or abuse. The following elements are flagged for review and must be addressed before any medication is dispensed:

- Is the claim a duplicate claim?
- Is the prescription eligible for refill, or is it too soon?
- Is the medication quantity appropriate?
- Considering all medications the patient is taking, is the cumulative morphine-equivalent quantity-perday amount safe?
- Is the day supply appropriate?
- Is the dosage too high for the medication?
- Is the claim request based on an expired prescription?
- Does the member appear to be stockpiling medication?
- Is the member taking a similar medication that would provide a duplicate therapy?

Comprehensive Utilization Review

BeneCard combines technology, reporting analysis, and clinical expertise to address possible fraud, waste, and abuse. This includes identifying members who appear to engage in the following:

- Using medication quantities beyond the appropriate medical norm
- Using multiple physicians and/or pharmacies
- Using multiple controlled substances
- Showing complex patterns of use

BeneCard clinical pharmacists review the information on flagged claims to confirm whether the submitted request is legitimate and medically necessary. They may contact the prescriber to verify the prescription, and to make the prescriber aware of the member's potentially questionable utilization. For each claim identified as a possible concern, BeneCard pharmacists develop an action plan. Next steps can include working directly with the prescriber, or reporting the details of the claim and any associated concerns to appropriate regulatory agencies or external authorities.

Fraud, Waste, and Abuse: Detection and Prevention

Evidence of BeneCard's effective management of fraud, waste, and abuse, and its role in addressing safe and appropriate use of opioid medication, can be found in the following example.

Following strict safety protocols, BeneCard identified a member who had submitted multiple oxycodone prescriptions indicative of duplicate therapy. These prescriptions were flagged as requiring clinical review due to questionable utilization. As a result of the review process, the prescriber was found to be involved with theft, overprescribing of narcotics, and writing fraudulent prescriptions. The claims for oxycodone were rejected, and the prescriber is no longer working with the practice. In addition, restrictions were put in place to require clinical review of all controlled substances for the member in question.

BeneCard has not processed any claims for controlled medications for that member since the investigation took place. This has helped to prevent potentially illegal activity meant to obtain prescription opioids, and has saved the client from unnecessary and inappropriate costs.





The table below provides a record of the claims that prompted the investigation, and demonstrates the pattern of excessive prescribing flagged by BeneCard for review.

Medication	Prescriber	Quantity	Day Supply	Timing of Prescription
Oxycodone 30mg	Doctor 1	120	30	Month 1
Oxycodone 15mg	Doctor 1	120	30	Month 2
Oxycodone 30mg	Doctor 1	120	30	Month 3
Oxycodone 15mg	Doctor 1	60	30	Month 3

Opioid Management Results

BeneCard's enhanced management of opioid medications has helped to reduce prescription opioid utilization, and to ensure that prescription opioids are being used appropriately. The result is evidenced in the 20-month period ending in August of 2017, during which the amount spent on opioid medications was reduced by 21% per member per month.

A detailed review of this decrease in cost demonstrates that the savings is primarily due to a 14% reduction in the quantity of opioid prescriptions per utilizing member, coupled with a 1% reduction in the quantity of medication units per each claim. BeneCard has also reduced the percentage of opioid claims vs. total claims by 67% from 2014 to 2017 (shown in the chart *Opioid Claims vs. Total Claims*).

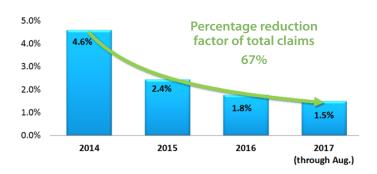
BeneCard's current opioid management programs exceed the prescribing guidelines released by the CDC in 2016. The company's proactive and unwavering focus on quality of care and member safety is well-supported by their comprehensive clinical programs, which have been in place for many years prior to the release of the 2016 CDC guidelines. These programs offer extensive protections to both members and plan sponsors.

Proven Excellence in Management of Opioid Claims

For all plan sponsor groups, BeneCard has measurably reduced the percentage of opioid claims relative to total claims on an annual basis. The graph below charts this reduction from January 2014 through August of 2017. During this time, BeneCard reduced opioid utilization by 67% through its state-of-the-art claim processing system and clinical protocols, which are aligned to keep members safe. This result is driven by the savings trend in the decreased quantity of units dispensed per claim and the decreased quantity of prescriptions filled per covered lives. The reduction in fill rate is the direct result of BeneCard's gold standard approach to detecting fraud, waste, and abuse, combatting exceptionally high national trends.

BeneCard's programs reduce inappropriate prescription patterns on the front end and prevent unnecessary refills in the long run.

BeneCard Percentage Reduction of Opioid Claims vs. Total Claims



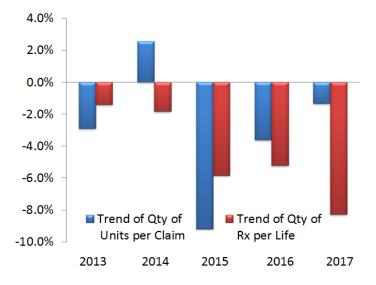




Data from two of BeneCard's key accounts shows the impact of group-specific results. Savings based on effective management of opioid prescriptions have been significant during the time these clients have had their prescription benefit plan managed by BeneCard. The graphs below reflect each group's savings, on a percentage basis, compared to the previous year.

One client, a county government, experienced a downward trend in the quantity of opioid prescriptions versus total prescription claims. BeneCard's fraud, waste, and abuse management program generated a significant decrease in opioid claims as a percentage of total claims. Over the same time period, the quantity of opioid prescriptions versus the number of covered lives consistently showed a negative percentage trend.

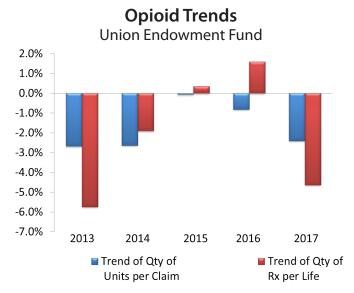
Opioid Trends County Government



Note: Percentages represent the change from the prior year.

The trend reduction in 2015 is a result of BeneCard's datamining program that led to changes in Quantity Limits, Step Therapy, and Prior Authorization protocols to address any problematic trends identified.

Another client, a large government union, experienced similar results. The quantity of opioid prescriptions versus total prescription claims remained a negative percentage trend for each year. During that same time period, the quantity of opioid prescriptions versus the number of covered lives followed an overall downward trend.



Note: Percentages represent the change from the prior year.

Summary

While the opioid crisis has been prominent in local and national news outlets over the past year, BeneCard has provided effective prescription opioid management designed to safeguard members and prevent fraud, waste, and abuse for many years. As shown in Vydahl's analysis of BeneCard's opioid management programs, BeneCard's programs have delivered positive results both overall and at the group-specific level.

As verified above, BeneCard PBF has reduced, for all groups, the percentage of opioid claims relative to total claims during the time frame analyzed. This trend is driven by the decreased quantity of units dispensed per claim and the decreased quantity of prescriptions filled per covered lives.

BeneCard's enhanced management of opioid medications has effectively combatted alarmingly high national trends of overutilization, resulting in a 67% decrease in opioid utilization across its book of business.





About the Author:

Paul Manz, MBA Managing Partner of Vydahl LLC.

Paul Manz is a leader in healthcare analytics based upon more than 30 years of extensive experience in healthcare cost management and consulting for payers, providers and employers.

As the Vydahl Group's Managing Partner, Paul integrates healthcare consulting with partnership opportunities. Recent involvement includes leading edge pharmacogenetics testing models and diabetic lab management. Paul also co-authored a report for AHPI (American Health Policy Institute) studying wasteful spending. The report reviewed \$10 billion in healthcare claims, finding \$2 billion in savings opportunities.

Paul's recent client experience includes Pioneer ACO model development, major payer contracting, the design of actionable information, cost containment solutions, P4P quality & efficiency based reimbursement payer models, ROI methodologies, payer contracting, and providing leadership in the management of quality and efficiency metrics benchmarks. This includes report design of key metrics based upon CMS data files and coordination with CMS for aggregate reinsurance protection, including reimbursement and reporting infrastructures. He led the implementation of initial internet based "drill down" reporting systems and "severity adjusted" risk-sharing methods.

Paul holds a degree in Business from Villanova University and an MBA in Healthcare Administration/Finance from Temple University.

Paul currently serves on the Executive Committee of Friends Life Care Board of Directors; Chairman Finance Committee, FLC; and Advisor to Friends Life Care Partners.

FOOTNOTES:

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