Buprenorphine Use and Cost Trends

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Disclosures

- Andrew Roberts, PharmD, PhD, and Elizabeth Nichols, MS, 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
Learning Objectives

- Describe historical trends in the use and cost of buprenorphine.
- Identify the underlying policy and market changes contributing to these trends.
- Explain the implications of recent buprenorphine use and cost trends on future efforts to expand opioid use disorder treatment.
Buprenorphine Use and Cost Trends

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BACKGROUND
2.1 million Americans suffered from an opioid use disorder (OUD) in 2016.

OUD Prevalence

OptumLabs Data Warehouse. Note: Blue indicates better performance. Grey areas indicate counties with insufficient data to calculate measures. Histograms depict performance on x-axis, and number of counties on y-axis.
OUD diagnoses rising

Rate per 1,000 Blue Cross Blue Shield members

OUDs are associated with...

- Co-occurring substance use disorders
- Co-occurring mental health conditions
- Adverse social, legal, and financial consequences
- Opioid-related death
Overdose Deaths Involving Opioids, by Type of Opioid, United States, 2000 - 2016

- **Any Opioid**
- **Other Synthetic Opioids** (e.g., fentanyl, tramadol)
- **Heroin**
- **Natural & Semi-Synthetic Opioids** (e.g., oxycodone, hydrocodone)
- **Methadone**

Overdose Deaths Involving Opioids, by Type of Opioid, United States, 2000-2016

Medication-assisted treatment (MAT)

Any Opioid

Other Synthetic Opioids (e.g., fentanyl, tramadol)

Heroin

Natural & Semi-Synthetic Opioids (e.g., oxycodone, hydrocodone)

Methadone

Medication-assisted treatment (MAT)

Detox ➔ Maintain ➔ Taper (maybe)

- Behavioral therapy, combined with medication
  - Methadone
  - Naltrexone
  - Buprenorphine
Buprenorphine benefits

- Delivered through office-based prescribers and community pharmacies
- Multiple formulations, brand and generic
- Decreases risk of opioid-related death by 66%
  (Sordo, et. al. BMJ 2017)
Key takeaway:

Treating the underlying opioid use disorder is necessary for saving lives.
Only 1 in 5 with an OUD receive treatment.


OUD Treatment Gap

OptumLabs Data Warehouse. Note: Blue indicates better performance. Grey areas indicate counties with insufficient data to calculate measures. Histograms depict performance on x-axis, and number of counties on y-axis.
Expanding buprenorphine use

- Recent efforts have:
  - Broadened who can prescribe buprenorphine
  - Increased caps on # of patients buprenorphine prescribers can manage
  - Funded MAT treatment, research, and education
Now that we’re tackling provider access and aiming for massive uptake in MAT use:

Are there cost-related barriers to receiving MAT with buprenorphine?
Increased out-of-pocket Rx burden...

- Increases primary nonadherence
- Decreases medication adherence
- Shortens medication persistence
- Diminishes beneficial health outcomes
The looming specter of price gouging

**Perspective**

The Rising Price of Naloxone — Risks to Efforts to Stem Overdose Deaths

Ravi Gupta, B.S., Nilay D. Shah, Ph.D., and Joseph S. Ross, M.D., M.H.S.

<table>
<thead>
<tr>
<th>Naloxone Product</th>
<th>Manufacturer</th>
<th>Previous Available Price (yr)</th>
<th>Current Price (2016)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Injectable or intranasal, 1 mg-per-milliliter vial</td>
<td>Amphastar</td>
<td>$20.34 (2009)</td>
<td>$39.60</td>
</tr>
<tr>
<td>(2 ml) (mucosal atomizer device separate)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Injectable</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>0.4 mg-per-milliliter vial (10 ml)</td>
<td>Hospira</td>
<td>$62.29 (2012)</td>
<td>$142.49</td>
</tr>
<tr>
<td>0.4 mg-per-milliliter vial (1 ml)</td>
<td>Mylan</td>
<td>$23.72 (2014)</td>
<td>$23.72</td>
</tr>
<tr>
<td>0.4 mg-per-milliliter vial (1 ml)</td>
<td>West-Ward</td>
<td>$20.40 (2015)</td>
<td>$20.40</td>
</tr>
<tr>
<td>Auto-injector, two-pack of single-use prefilled auto-</td>
<td>Kaleo</td>
<td>$690.00 (2014)</td>
<td>$4,500.00</td>
</tr>
<tr>
<td>injectors (Evzio) (approved 2014)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nasal spray, two-pack of single-use intranasal devices</td>
<td>Adapt</td>
<td>$150.00 (2015)</td>
<td>$150.00</td>
</tr>
<tr>
<td>(Narcan) (approved 2015)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* Price information was obtained from Medi-Span Price Rx (Wolters Kluwer Clinical Drug Information).

TO THE RESEARCH!
OBJECTIVE:

Describe historical trends in the use and cost of buprenorphine among adults with commercial insurance
People and data

- Population: Adults age 18-64 with private insurance
  - Why? More exposure to out-of-pocket costs

- Data: MarketScan prescription claims for 2003-2015
  - About 20 million people each year
  - Mostly employer-sponsored insurance
What are we measuring?

- **Buprenorphine users**
  - Annual # of new buprenorphine users
  - Annual # of total buprenorphine users

- **Median buprenorphine spending (30-day supply; inflated to 2015 dollars)**
  - Out-of-pocket
  - Plan
  - Total (out-of-pocket + plan)
Buprenorphine products of interest

- FDA-approved indication for OUD (no Butrans)

- Brand buprenorphine/naloxone
  - Suboxone, Bunavail, Zubsolv

- Brand buprenorphine
  - Subutex, Buprenex, Belbuca

- Generic buprenorphine (2009-on)

- Generic buprenorphine/naloxone (2013-on)
WHAT WE FOUND
Population

- 326,432 unique buprenorphine users
- Mean age = 36 years (SD=11)
- 65% male
- 64% had OUD diagnosis (68% with any substance use disorder)
- Average of 8 Rx fills per person
Buprenorphine users over time

- New buprenorphine users
- Total buprenorphine users

Buprenorphine users/100,000 insured adults

- Y-axis: Buprenorphine users/100,000 insured adults
- X-axis: Years from 2003 to 2015
Buprenorphine fills, by product type
Buprenorphine cost over time; all products

- Total cost
- Plan cost
- Out of pocket cost

Median cost of 30-day fill

- $0
- $100
- $200
- $300
- $400
- $500
- $600
- $700

Quick peek outside the median

25th PERCENTILE

- Total cost
  - 2003: $218
  - 2015: $210

- Out-of-pocket cost
  - 2003: $32
  - 2015: $11

75th PERCENTILE

- Total cost
  - 2003: $553
  - 2015: $437

- Out-of-pocket cost
  - 2003: $134
  - 2015: $70
Brand buprenorphine/naloxone costs

- Total cost
- Plan cost
- Out of pocket cost

Median cost of 30-day fill

$0 $100 $200 $300 $400 $500 $600 $700

Brand buprenorphine costs

[Chart showing the median cost of buprenorphine over time, with lines for total cost, plan cost, and out of pocket cost. The costs increase over the years.]
Generic buprenorphine/naloxone costs
Generic buprenorphine costs
Major takeaways – Buprenorphine use

- Generic buprenorphine/naloxone didn’t take off like we would expect after 2013

- New and total buprenorphine users rose every year until 2013

- After 2013
  - Total buprenorphine users plateaued
  - New buprenorphine users declined
Major takeaways – Buprenorphine cost

- Health plan spending for 30 days of buprenorphine was steady (median fluctuated between $270-$330)

- Out-of-pocket spending steadily declined ($67 to $32)
  - Generics were $10/month

- New generic buprenorphine/naloxone products dropped total drug cost 25% from 2013 to 2015
A QUICK COMPARISON
BCBS buprenorphine users since 2010

EXHIBIT 12: PREVALENCE OF MEDICATION-ASSISTED TREATMENTS (PER 1,000 MEMBERS)

Medicare Part D buprenorphine users

SOURCE: Medicare Provider Utilization and Payment Data: Part D Prescriber
Medicare Part D buprenorphine fills

SOURCE: Medicare Provider Utilization and Payment Data: Part D Prescriber
Medicare Part D buprenorphine cost

SOURCE: Medicare Provider Utilization and Payment Data: Part D Prescriber
LIMITATIONS TO OUR STUDY
Study limitations

- Can’t generalize to other payer populations
- Can only see fills that were paid for using insurance
  - How many chose not to fill their buprenorphine?
  - How many paid cash without insurance?
- Don’t know manufacturers’ rebates
- Did not look at methadone or naltrexone
IMPLICATIONS FOR BUPRENOORPHINE DELIVERY AND POLICY
Good news for patients with OUD

- Buprenorphine likely not cost-prohibitive

- Affordable buprenorphine is likely to promote:
  - Initiating OUD treatment
  - Optimal adherence to buprenorphine
  - Positive OUD outcomes
  - Receipt of a comprehensive MAT regimen

- No evidence of buprenorphine price gouging
Action items moving forward

- Monitor and maintain (or improve) buprenorphine costs
- Promote generic buprenorphine prescribing
- Eliminate plan restrictions on OUD treatments
- Increase buprenorphine provider supply, especially in rural/underserved communities
  - Hub and Spoke model
  - Project ECHO
Important questions for the future

- Why did buprenorphine use trail off after 2013?
  - Was this a provider capacity issue?
  - Did 2016 buprenorphine provider policies help?

- Why did brand buprenorphine/naloxone products retain so much market share after 2013?
Important questions for the future (cont.)

- How does buprenorphine cost affect OUD treatment initiation, adherence, and outcomes?

- Are high deductible health plans a deterrent?
  - Role for value-based insurance design for MAT?

- How do we ensure the accessibility of effective new technologies? (e.g. Probuphine)
OUR QUESTION FOR YOU:

What does our team need to know about the patient experience obtaining MAT, cost-related or otherwise?
THANK YOU!

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THANK YOU

#RxSummit
www.NationalRxDrugAbuseSummit.org