Drugs & Healthcare Economics: What Can We Do About It?

University of Minnesota Retirees Association

Minneapolis, Minnesota
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PRIME Institute
University of Minnesota
Is there anyone who has never been sick a day in their life?

Is there anyone who has not needed (or used) a prescription drug?

_Virtually everyone needs, has used, or will use drugs in their lifetime._
DOCTOR, HOW SICK AM I - IN DOLLARS AND CENTS?
Where Does Your Premium Dollar Go?
Characterizes how a dollar of commercial health insurance premium was spent in 2014.

- 22.1¢ Prescription Drugs
- 22.0¢ Physician Services
- 19.8¢ Outpatient Services
- 15.8¢ Inpatient Services
- 17.8¢ Operating Costs
- 2.7¢ Net Margin

80% Medical Expenses
18% Operating Costs
3% Net Margin

Are Drug Prices Still an Issue?
Top Brand Name Drugs Most Used by Elderly Drug Price Inflation & CPI-All: 1998 to 2015

- Affordable Care Act Passed (Mar. 2010)
- ACA Mandated Coverage Begins (2014)

Source: Compiled by the PRIME Institute, Univ. of Minnesota and AARP from data found in MediSpan (Wolters Kluwer Health Inc., May 1, 2010).
Total Paid ($) per Claim by Drug Type: 2004 (Jan.) to 2017 (Mar.)

Based on data from Univ. of Minnesota self-insured drug benefit (UPlan) 2004 to 2017 & compiled by PRIME Institute, University of Minnesota.
Total Paid ($) per Claim by Drug Type:
2004 (Jan.) to 2017 (Mar.)

Based on data from Univ. of Minnesota self-insured drug benefit (UPlan) 2004 to 2017 & compiled by PRIME Institute, University of Minnesota.
$/EpiPen (2-pak) for Self-Insured Health Plan: 2005-2016

* 623% Increase In 11 Years (2005-2016)
* 305% Increase In 6 Year (2011-2016)

* 2011-2016: Employer Spending on EpiPen
  ↑ $1,000,000 Due to Price ↑ Alone

Market Observations

While epinephrine is off-patent, the auto-injection device is not.

A potential competitor to EpiPen (Auvi-Q) entered the market in April 2018.

The ‘competitive’ price of the new product (Auvi-Q) was $4,500/2-pak* ➔ 6 times the price of EpiPen.

Is $4,500 vs. $730 the price you would expect from a competitor?
---No

This Market is Broken.

Based on data from self-insured drug benefit 2004 to 2016 & compiled by PRIME Institute, University of Minnesota.
Humulin U-500: Average $/Month for Commercial Insurance: 2005-2013

* 361% Increase In 8 Years

$ / Month

$1,000
$900
$800
$700
$600
$500
$400
$300
$200
$100
$0

Jan-06 Apr-06 Jul-06 Oct-06 Jan-07 Apr-07 Jul-07 Oct-07 Jan-08 Apr-08 Jul-08 Oct-08 Jan-09 Apr-09 Jul-09 Oct-09 Jan-10 Apr-10 Jul-10 Oct-10 Jan-11 Apr-11 Jul-11 Oct-11 Jan-12 Apr-12 Jul-12 Oct-12 Jan-13 Apr-13 Jul-13 Oct-13 Jan-14

$187
$247
$431
$5,172
$10,375

$2,954/Year
$5,172/Year
$10,375/Year

100% Increase
In 2 Years:
2012 to 2014

75% Increase
In 2 Years:
2010 to 2012

13% Increase
In 4 Years:
2006 to 2010

Market Observations

Insulin has been on the market since the 1930s.

The price of insulin has ↑ >4-fold over 8 years.

The annual cost of insulin grew from ~$2,500 (2006) to >$10,000 (2014).

Insulin prices have continued to grow.

Patients have died because they could not afford their insulin.

This Market is Broken.

Based on data from self-insured drug benefit 2004 to 2014 & compiled by PRIME Institute, University of Minnesota.
When a drug has a 100% increase in price does the patient’s diabetes get 100% better?

NO !!!

Are We Getting Our Money’s Worth?  
Is the Market Really Working?

This Is Not an Efficient Market  
Or Value-Based Pricing!
Annual Cost of Multiple Sclerosis Therapies in the U.S. from 1993 to 2013

We Assume That More Competitors Will Make the Market Work!

What Happened With MS drugs as more competitors entered the market?

MS Therapy Prices ↑ 500% to 1,000% When 9 Competitors Entered Over 20 Years.

Is This Market Competitive & Economically Efficient?

Source: The cost of multiple sclerosis drugs in the US and the pharmaceutical industry: Too big to fail?

Daniel M. Hartung, PharmD, MPH
Dennis N. Bourdette, MD
Sharia M. Ahmed, MPH
Ruth H. Whitham, MD

Neurology, 84 May 26, 2015, pp.1-8

Annual Cost of Multiple Sclerosis Therapies in the U.S. from 1993 to 2013

Market Observations

Multiple Sclerosis Therapy had an annual cost of about $10,000 from 1993 to 2002. The 2nd & 3rd MS therapies entered the market at a lower annual cost of about $8,000. One would expect the annual cost to decline as more competitors enter the market. From 2002 to 2016, 6 new MS therapies entered the market & the annual price reached $60,000 to $80,000. An economically competitive market would be expected to result in lower, rather than higher prices.

More competitors for MS therapy resulted in prices that ↑ 6-fold to 8-fold

This Market is Broken.
Do Generic Prices Still Go Down Over Time? Usually But Not Always
Do Generics Compete on Price: Patterns of Generic Competition

MARKET DYNAMICS
When Generic Enters Market, Price Drops 10% to 25%
If 6 Mo. Exclusivity for Generic, Price Holds for 6 months
Price Drops Faster if:
--- More True Competitors?
--- Larger Market Size
--- Higher Price for Brand
MARKET DYNAMICS

Between 2013 & 2017:
--- Brands have ↑ 57.8%
--- Generics have ↓ 51.4%
--- Ratio of Brand:Generic was > 5 : 1 in 2013 grew to > 18 : 1 in 2017
### Drop Down Menu for Metformin

*Does not include price.*

Which product would you choose?

What is the cost/month?

<table>
<thead>
<tr>
<th>Name</th>
<th>Med Form</th>
<th>Disp</th>
<th>Route</th>
<th>Pref List</th>
<th>Code</th>
<th>Copay</th>
<th>Coverage</th>
<th>For Type</th>
<th>Price</th>
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<tr>
<td>glyBURIDE-metFORMIN (GLUCOVANCE) 5-500 MG tablet</td>
<td>Tablet</td>
<td>Oral</td>
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<td></td>
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<td></td>
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<td></td>
<td>$2078.97</td>
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</table>
Total Amount Paid by Quarter for Metformin Tab:
All Forms & Strengths for Q1 2011 to Q1 2018

Excess spend due to AB2 & AB3 generics
Weighted Average Retail Price per Day (median) from 2005 to 2015
For Older Generic Cohort (1980-2003) &
Newer Generic Cohort (2004-2009)


MARKET DYNAMICS
Generics with large increases (examples):
- Doxycycline 1789%
- Amitryptyline 262%
- Nystatin 223%
- Methylprednisolone 312%
- Digoxin 429%
- Lovastatin 229%
- 76 of 115 Generic Drugs Had Price ↑ > 25%

Schondelmeyer S, Purvis L, Trends in Retail Prices of Generic Prescription Drugs Widely Used by Older Americans 2006 to 2015. AARP Public Policy Institute, Rx Price Watch Report June 2017. Prepared by the AARP Public Policy Institute and the PRIME Institute, University of Minnesota, based on data from Truven Health MarketScan® Research Databases.
Weighted Average Annual Percent Change in Retail Price for Older Cohort (1980-2003) of Most Widely Used Generic Prescription Drugs, 2006 to 2015

Schondelmeyer S, Purvis L. Trends in Retail Prices of Generic Prescription Drugs Widely Used by Older Americans 2006 to 2015. AARP Public Policy Institute, Rx Price Watch Report June 2017. Prepared by the AARP Public Policy Institute and the PRIME Institute, University of Minnesota, based on data from Truven Health MarketScan® Research Databases.
Role of Generics
Be Wise & Beware
Proton Pump Inhibitors $ Cost/Unit for Self-Insured Employer*: 2016

<table>
<thead>
<tr>
<th>Drug</th>
<th>Cost/Unit</th>
<th>2016</th>
<th>2016</th>
<th>2016</th>
</tr>
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<td>1.06</td>
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<td>0.09</td>
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<td>Prilosec OTC Tab</td>
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<td>Dexlansoprazole</td>
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<td>0.11</td>
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<tr>
<td>Pantoprazole</td>
<td>17.01</td>
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<tr>
<td>Rabeprazole</td>
<td>22.00</td>
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</tbody>
</table>

* Compiled by the PRIME Institute, University of Minnesota from actual claims data for total amount paid by a self-insured employer for calendar year 2016.

**NEW GENERIC GAMES**

- **Zegerid** (omeprazole & sodium bicarb.)
  - Price: $17,000/Rx ($95 / tab)
  - (Valeant, 90-day supply)

- **Generic Version of Zegerid** (Oceanside, 90-day supply)
  - $12,000/Rx (30% discount off brand)

- **Generic Version of Omeprazole & Sod. Bicarb.**
  - $17/Rx (90-day supply)

**BENEFIT DESIGN ISSUES**

What Should You Do With Drugs Like Zegerid?
--- Cover Them? or --- NDC Block Them?

Should You Cover OTCs?
Should You Cover Brands With Price Ratios > 25:1?
What Do You Take to the Bank?
Government Policy Directions
OVERVIEW

- Everything old is new again
- Some new ideas on the scene
- Administration remains very engaged
“Healthcare is an unbelievably complex subject. Nobody knew that healthcare was so complicated.”

U.S. drug prices have been “outrageous.” *1
Pharmaceutical firms are “getting away with murder.” *2

Reforming Biopharmaceutical Pricing at Home and Abroad

The Council of Economic Advisers
February 2018
“The Blueprint”

- Does a great job of describing the problem…
- Touches on large number of potential solutions BUT unclear how they would be implemented or when
  - Some would require legislation
- Does not address manufacturer pricing behavior
Rebates have grown to account for 1/3 of total drug firm revenue reported to Wall Street.

Rebates lead to inflated list prices & increased up-front payments for drugs so that the PBM can collect a rebate from the drug manufacturer 9 to 12 months without interest on the time value of money.

Rebates are a very inefficient means for providing discounts on prescription drug prices.

Lack of transparency on rebates & other fees makes it nearly impossible for plan sponsors to hold PBMs & drug firms accountable for prices & rebates.

Some rebates may be passed on to the plan sponsor and/or the patients.

There are many other types of fees & economic consideration between drug firms & PBMs.

Source: Company data, Credit Suisse estimates
Focus on Rebates

- Drug companies provide rebates to secure place on plan formularies, then raise list prices to maintain their profits and offer even bigger rebates.

- Pharmacy benefit managers, wholesalers and pharmacies are also paid based on a percentage of the list price.

- A few approaches in play:
  - Point-of-sale rebates under Medicare Part D
  - Eliminate rebates entirely
Secretarial negotiation is incredibly popular

• **92%** of the public supports allowing Medicare to negotiate lower drug prices
  o 96% of Democrats
  o 92% of independents
  o 92% of Republicans

• **BUT**: support isn’t as solid as it seems
So what is everyone talking about in 2019?

- Secretarial negotiation
- Importation
- Eliminate pay-for-delay
Some things are pretty much guaranteed…

• More Congressional hearings

• Continued bad behavior by some manufacturers as they return to business as usual.

• Issue will likely continue to get attention as more and more people become unable to afford necessary medications.
International reference pricing

- Limits payments to the price paid by another country or a market basket of countries
  - Widely used in other countries
  - Like importation, fits with larger narratives of “free-riding” and “fairness”
Nuclear options are increasingly on the table

- Revisiting when & how patents & exclusivity are granted
- Revoking patents and/or exclusivity for bad behavior (compulsory licensing)
2017/2018 State Rx Legislation

• 2018 Session: 171 Bills (up from 100 bills in 2017)
• 28 States Enacted 45 New Laws on Drug Costs

Major Categories of Legislation:

• PBM Oversight – 92 Bills (31 laws in 20 states)
• Transparency – 26 Bills (7 laws: OR, VT, ME, NH, CT, CA*, NV*)
• Price Gouging – 13 Bills (1 law: MD*)
• Wholesale Importation – 9 Bills (1 law: VT)
• Bulk Purchasing – 4 Bills
• Drug Affordability Review Boards – 3 Bills: MD, NJ, MN;

*= enacted in 2017
So What Does the Future Hold?
The Drug Market is Broken!

- FDA Approves Drugs That Are Better Than Placebo
- Medicare & Medicaid Must Cover FDA Approved Drugs
- Drug Firms Set Any Price They Want (a blank check)
- Coverage Has Been Broadened to Include Most People (> 90% of U.S. Residents)
- Increased Cost-Sharing for Rx Coverage
- The Cost is on Individuals, Employers, or Govt.
- Cost-Sharing Does Not Increase Resources
- Cost Shifting → Income Re-Distribution
Are Drug Firms …

or PBMs or Drug Chains or Health Systems

Too Big to Fail?
Criteria for a Public Good

What is a public good?

• Monopoly Position (Natural or Legislated)

• Universal Demand (Good or Service)

• Essential to Life & Existence

• Common Benefit to Society
Some New Drugs Enter the Market at an Annual Cost of:

- **A Week’s Vacation** ($1k to $9k)
  (Average Brand Name Prescription Claim)

- **A New Economy Car** ($10k to $25k)
  (Insulin, PCSK9s for cholesterol)

- **A New Luxury Car** ($30k to $100k)
  (Harvoni & Hep C drugs, Gilenya & MS drugs)

- **A New House** ($200k to $500k)
  (Opdivo, Yervoy, Cancer & orphan drugs)
Economics of Prescription Drugs

“A drug that one can not afford is neither safe nor effective.”

-- Stephen W. Schondelmeyer
Value is Essential

PRICE is not the ONLY issue, but Price is always an important issue in VALUE.

-- Stephen W. Schondelmeyer
Health Value is About:
Efficient Resource Use
The Most Health Outcome
for the Limited Dollars Spent on Health Care.
Value
A Life & Death Matter
How Much is Your Life Worth?

How Much Do You Have in the Bank?

Can You Afford Yourself?

What Happens When Our Expectations Exceed Our Resources

Our Expectations & Choices May Not Be Sustainable!
What Can I Do About Drug Cost?

- Know the cost of the drugs you are prescribed.
- Ask for generic drugs when they are safe & effective.
- Don’t assume that all generics are always cheaper.
- Avoid ‘Branded’ Generics.
- Avoid Combination drugs and check the cost.
- Know your drug coverage plan and how it works.
- Coupons don’t always save $ & sometimes cost more.
- Be a prudent buyer for your prescriptions!
Questions ?
&
Discussion . . . !