Tough Pill to Swallow - The High Price of Prescription Drugs in the US

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Prepared by the Institute for Health and Socio-Economic Policy

The Institute for Health & Socio-Economic Policy (IHSP) is a non-profit policy and research group and is the exclusive research arm of the California Nurses Association/National Nurses United. The IHSP focus is current political/economic policy analysis in health care and other Industries and the constructive engagement of alternative policies with international, national, state and local bodies to enhance promote and defend the quality of life for all.

The Health Care Advisory Board is comprised of scholars and policy activists from the Albert Einstein College of Medicine, Boston University, Harvard University, the Canadian National Federation of Nurses’ Unions, the New School New York and the University of California.
SUMMARY

→ Spending on prescription drugs increased dramatically in the US over the last several decades, and shows no sign of slowing
  - In 2014 drug costs in the US had grown to 761% of what they were in 1984
  - From 2013 to 2015, spending on drugs grew 20%
  - Spending on drugs is projected to grow 80% over the next 10 years

→ The primary cause for increased spending on prescription drugs in the US is high prices of brand-name drugs
  - From 2008 to 2015 the price of brand-name drugs in the US increased by 164%
  - The average price of cancer drugs increased from $5,000 to $10,000 before 2000 to over $100,000 by 2012
  - Between 2011 and 2015, the average price increase for the nation’s top 10 selling brand-name drugs was 91%
  - Newly approved specialty medications are charging astronomical prices

→ Generic drugs have been experiencing significant price increases as well
  - Nearly 400 generic medications had price increases of more than 1,000% between 2008 and 2015.
  - In 2014, half of all retail generic drugs became more expensive, with one out of 11 more than doubling in cost

→ US prices more expensive than other nations
  - In 2015 US prices for the worlds 20 top selling drugs were three times higher than in Britain, six times higher than in Brazil, and 16 times higher than the average in the lowest-price country, usually India
  - A study published by the American Society of Clinical Oncology in 2016 indicated that US prices for brand-name cancer drugs were nearly triple the price of the next highest nation reviewed in the report, and more than double the average price for generic cancer medications for the other nations reviewed
  - Medicare paid more than similar programs in Great Britain for 39 of the top 40 branded drugs, 37 of the top 40 in Norway, and 28 out of 30 in Ontario, Canada
  - The 2013 and 2015 International Federation of Health Plans’ price surveys revealed that out of 8 countries and 14 drugs, the US paid the highest prices for drugs in 13 out of the 14 cases
Tough Pill to Swallow – The High Price of Prescription Drugs in the US

A drug company can increase the price of a product many times over, and people will still buy it because they need it.¹

Kevin Riggs, M.D., Johns Hopkins University

Between 1984 and 2014 spending on retail drugs in the US has swelled 761%, rising from $39 billion to $298 billion in inflation adjusted dollars. Over the same period, drug costs have more than doubled as a percentage of total national health expenditures – going from 4.8% to 9.8% of total spending.² In 2015, 16.7% of all personal health spending was devoted to purchasing medications, including non-retail drugs, according to the Department of Health and Human Services. While drug costs seemed to stabilize after 2009, growth returned in 2014 with a 12.6% jump in spending from the previous year.³ Medicare Part D spending on medications grew an eye-popping 17% in 2014.⁴ From 2013 to 2015 spending on prescription drugs increased 20%.⁵ Drug costs are expected to continue rising at an average rate of 6.7% annually from 2016 through 2025.⁶ This translates into an 80% increase over the 10 year period.

Source: http://www.healthsystemtracker.org/

Rising drug costs have several causes, including increasing numbers of people using prescription medications and the advent of new drugs to treat more conditions than in the past. These mitigating factors, however, do not undercut the fact that a key driver in exploding drug costs is rising prices.

Martin Shkreli, former CEO of Turing Pharmaceuticals, brought this issue to national attention after his company acquired Daraprim – an affordable and readily available drug used mostly by HIV patients to treat toxoplasmosis – and raised its price by 5,500% overnight, from $13.50 a pill to $750. The price spike strained hospital budgets and drove up the copayments of HIV patients by thousands. Shkreli and Turing were loudly condemned for their greed in the press, in Congressional hearings, and even by multiple presidential candidates.

In the US, unlike many other countries, drug corporations are allowed to set prices to maximize profits. When a drug company determines that higher prices will yield higher profits, it is free to raise prices as high as it sees fit. Medicare, which is by far the largest single buyer of prescription drugs in the US, accounting for 28% of all purchases, is actually barred by law from negotiating with drug companies over prices. This is in stark contrast to the practices of virtually all other industrialized nations, which negotiate drug prices at the national level. The US pharmaceutical industry, with no price regulations and limited competition, has been free to inflate prices at will for years. Not surprisingly, we pay by far the highest drug prices in the world, in spite of the fact that much of the basic drug research is subsidized by US tax dollars.

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Raising Prices

*It comes down to simple greed... You’re denying patients access to life-saving medications by jacking the prices up sky high.*

Dr. Henry Jacobs, President of the Connecticut State Medical Society

According to a recent study published in the Journal of American Medical Association, the primary cause for increased spending on prescription drugs in the US is high prices of brand-name drugs. A quick run through of recent price data will illustrate this point. Express Scripts, the largest pharmacy benefits company in the US, reports that the average price of brand-name drugs increased 164% between 2008 and 2015 (while the consumer price index increased only 12%). In 2015 the prices for brand-name products spiked 16.2%, while one-third had price increases greater than 20%. The average price of cancer drugs increased from $5,000 to $10,000 before 2000 to over $100,000 by 2012.

Individual examples of huge price increases are virtually endless:

<table>
<thead>
<tr>
<th>Drug</th>
<th>Use</th>
<th>Price Increase</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vimovo</td>
<td>arthritis pain reliever</td>
<td>1,270% from 2013 to 2015</td>
</tr>
<tr>
<td>Dutoprol</td>
<td>high blood pressure</td>
<td>1,014% from 2013 to 2015</td>
</tr>
<tr>
<td>Tasmarn</td>
<td>Parkinson’s disease</td>
<td>675% from 2013 to 2015</td>
</tr>
<tr>
<td>Zonegran</td>
<td>epilepsy</td>
<td>667% from 2013 to 2015</td>
</tr>
<tr>
<td>Isuprel</td>
<td>heart problems</td>
<td>718% in 2015 alone</td>
</tr>
<tr>
<td>Nitropress</td>
<td>blood pressure</td>
<td>526% in 2015 alone</td>
</tr>
<tr>
<td>Cuprimine</td>
<td>Wilson’s disease</td>
<td>2,850% in 2015 alone</td>
</tr>
<tr>
<td>Gleevec</td>
<td>chronic myeloid leukemia</td>
<td>355% from 2001 to 2016</td>
</tr>
</tbody>
</table>

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Two sincere requests...Let’s not fold to advocacy pressure in 2014. Let’s hold our position whatever competitors do or whatever the headlines.  

Kevin Young, Gilead’s vice president – November 2013, shortly before Sovaldi was cleared for sale by U.S. regulators

Another central cause of rising drug costs is the astronomical prices of some specialty medications recently approved by the FDA. Examples include Biogen Idec’s multiple sclerosis drug Tecfidera, $54,900 for a year of treatment; and Vertex Pharmaceuticals’ cystic fibrosis drug, $259,000 annually. One of the most costly new drugs to enter the pharmaceutical market in recent years is Gilead’s hepatitis C medications, Sovaldi and Harvoni. Sovaldi, which came out first, represented a vast improvement over previous treatments, working nearly 90% of the time with few side effects (as opposed to about half the time with many side effects). It was truly a breakthrough drug and game changer for those whose livers were being ravaged by hepatitis C. The only problem was the price: $1,000 a pill, or $84,000 for a 12 week course of treatment. Sovaldi created such a financial burden that the medication had to be rationed for thousands of patients on Medicaid and in prisons. In New Mexico and other states, Medicaid beneficiaries with hep C had to wait until they had late-stage liver disease before qualifying for Sovaldi. A congressional investigation into the high cost for the hepatitis C treatment concluded that the price was set without any regard for basic financial consideration such as research and development or acquisition costs. The investigation further concluded that the company’s only concern was maximizing profits. Gilead knew the price would put the drug out of reach for many patients and cause “extraordinary problems” for government health programs. In fact, the company predicted that 24% of insurers and other U.S. payers would restrict patient access to Sovaldi if the drug was priced at $75,000 per patient and 47% if priced at $90,000. Despite this information, the company chose to price the drug at $84,000.

It’s important to point out that budget breaking prices aren’t merely the realm of specialty drugs for rare conditions or greedy outlier corporations. The steady march toward higher brand-name prices is ubiquitous across the industry, including for the most widely prescribed drugs in the country. Between 2011 and 2015, the average price increase for the nation’s top 10 drugs was 91% (see table below). The sales revenue for these drugs increased by 44% between 2011 and 2014, reaching $54 billion, at the same time as the actual prescriptions for them dropped by 22%. Another example is insulin, widely used among the 29 million Americans with diabetes, which nearly tripled in price between 2002 and 2013.

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18 Why the U.S. Pays More Than Other Countries for Drugs: Norway and other state-run health systems drive hard bargains, and are willing to say no to costly therapy. By Jeanne Whalen, Updated Dec. 1, 2015 http://www.wsj.com/articles/why-the-u-s-pays-more-than-other-countries-for-drugs-1448939481
20 The True Cost of an Expensive Medication: The U.S. is unique among Western countries in that it doesn’t regulate drug prices. One nurse tells the story of what it’s like to watch patients get sicker when they can’t afford a pricey treatment. Sep 25, 2015 http://www.theatlantic.com/health/archive/2015/09/an-expensive-medications-human-cost/407299/
22 http://www.wsj.com/articles/gilead-knew-hepatitis-drug-price-was-high-senate-says-1449004771
23 Exclusive: Makers took big price increases on widely used U.S. drugs. By Caroline Humer, Apr 5, 2016: http://www.reuters.com/article/us-usa-healthcare-drugpricing-idUSKCN0X10TH
### Price increases for the top 10 drugs by U.S. sales

<table>
<thead>
<tr>
<th></th>
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</tr>
</thead>
<tbody>
<tr>
<td>Humira</td>
<td>AbbVie Inc</td>
<td>rheumatoid arthritis</td>
<td>126%</td>
<td>$8.4 billion</td>
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<tr>
<td>Enbrel</td>
<td>Amgen</td>
<td>rheumatoid arthritis</td>
<td>118%</td>
<td>$5.1 billion</td>
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<tr>
<td>Copaxone</td>
<td>Teva Pharmaceutical Industries Ltd</td>
<td>multiple sclerosis</td>
<td>118%</td>
<td>$4.0 billion</td>
</tr>
<tr>
<td>Crestor</td>
<td>AstraZeneca Plc</td>
<td>cholesterol</td>
<td>113%</td>
<td>$2.84 billion</td>
</tr>
<tr>
<td>Abilify</td>
<td>Otsuka Pharmaceutical Co Ltd</td>
<td>depression</td>
<td>96%</td>
<td>$8 billion</td>
</tr>
<tr>
<td>Lantus Solostar</td>
<td>Sanofi SA</td>
<td>insulin - diabetes</td>
<td>94%</td>
<td>$4.55 billion</td>
</tr>
<tr>
<td>Advair Diskus</td>
<td>GlaxoSmithKline Plc</td>
<td>asthma treatment</td>
<td>67%</td>
<td>$2.85 billion</td>
</tr>
<tr>
<td>Remicade</td>
<td>Johnson &amp; Johnson</td>
<td>arthritis treatment</td>
<td>63%</td>
<td>$4.45 billion</td>
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<tr>
<td>Neulasta</td>
<td>Amgen Inc</td>
<td>prevents infection in chemotherapy patients</td>
<td>55%</td>
<td>$3.89 billion</td>
</tr>
<tr>
<td>Nexium</td>
<td>AstraZeneca Plc</td>
<td>acid reflux</td>
<td>55%</td>
<td>$2.5 billion</td>
</tr>
</tbody>
</table>

When we polled our members about a year ago, they were experiencing a rash of dramatic price increases for generic drugs...Some of the rises occurred virtually overnight. And it continued to snowball and impact more and more medications.

Kevin Schweers, 2015 - senior vice president, National Community Pharmacists Association

Generic drugs, surprisingly, have also experienced significant price increases in recent years. While the prices of many generic drugs have remained stable, nearly 400 showed price increases of more than 1,000% between 2008 and 2015. In 2014, half of all retail generic drugs became more expensive, with one out of 11 more than doubling in cost. Many of these increases were pushed through by industry consolidation and firms taking advantage of monopolies or near-monopoly situations with old generic medications. Turing Pharmaceuticals exploited this strategy when it acquired the 63 year old drug Daraprim and raised its price by over 5,500% – despite the lack of patent protection, no other firm was licensed to sell the drug in the US. Stratospheric price spikes have hit a variety of other generics in recent years, including the antibiotic Doxycycline Hyclate (8,281% increase in the average price), asthma medicine Albuterol Sulfate (4,014% increase), heart medication Glycopyrrolate (2,728% increase).
colchicine, the centuries old treatment for gout (2,000% increase)\textsuperscript{30}, and old cardiac drugs isoproterenol (2,500% increase), nitroprusside (1,700% increase), and digoxin (637%).\textsuperscript{31}

**US Drug Prices Highest in World**

*The US represents about 5 per cent of the global population but about a third of the world’s drug revenue and somewhere between 50 per cent to 70 per cent of the world’s drug profitability.*\textsuperscript{32}

Dr Steve Miller, chief medical officer of Express Scripts

Given the level of price inflation discussed above, it is no surprise that drug prices are higher in the US than any other country on Earth. The US spends nearly double per capita on drugs than the average rate of other OECD countries.\textsuperscript{33} According to a 2015 analysis by Reuters, US prices for the worlds 20 top selling drugs were three times higher than in Britain, six times higher than in Brazil, and 16 times higher than the average in the lowest-price country, usually India.\textsuperscript{34} A study published by the American Society of Clinical Oncology in 2016 indicated that US prices for brand-name cancer drugs were nearly triple the price of the next highest nation reviewed in the study, and more than double the average price for generic medications for the other nations reviewed.\textsuperscript{35} A report by the Wall Street Journal found that Medicare paid significantly higher prices for drugs than other national drug purchasing programs in high income countries. Medicare paid more than similar programs in Great Britain for 39 out of the 40 top branded drugs available in both countries, in Norway for 37 out of 40, and in Ontario, Canada for 28 out of 30.\textsuperscript{36}

The 2013 and 2015 International Federation of Health Plans’ price surveys revealed that out of 8 countries and 14 drugs, the US paid the highest prices for 13 out of the 14 drugs reported. The surveys showed Switzerland paid only 35% of what US buyers paid for Xarelto (blood clots), 31% for Humira (arthritis), 53% for Harvoni (hepatitis C), 70% for Truvada (HIV/AIDS), 36% for Tecfidera (multiple sclerosis), 45% for Avastin (cancer), and 36% for OxyContin (pain). The Netherlands was shown to only pay 68% of what US buyers paid for Enbrel (Autoimmune diseases), 53% for Gleevec (cancer and Leukemia), 67% for Humira (rheumatoid arthritis), 30% for Copaxone (multiple sclerosis), 44% for


\textsuperscript{31} The High Cost of Prescription Drugs in the United States. Aaron S. Kesselheim, MD, JD, MPH; Jerry Avorn, MD; Ameet Sarpatwari, JD, PhD. \textit{JAMA}. 2016;316(8):858-871. \textit{http://jama.jamanetwork.com/article.aspx?articleid=2545691}

\textsuperscript{32} Price of cancer drugs vastly higher in US, according to study, June 6, 2016; by David Crow. \textit{http://www.ft.com/cms/s/0/851cd240-2b6f-11e6-bf8d-26294ad519fc.html?siteedition=intl#axzz4KSHRvoDD}

\textsuperscript{33} \textit{http://www.oecd-ilibrary.org/sites/health_glance-2013-en/07/04/g7-04-01.html?itemId=/content/chapter/health_glance-2013-67-en&mimeType=text/html&_csp_=_82798c694fdeaaaf10461068180fbee5d}

\textsuperscript{34} \textit{http://www.reuters.com/article/us-pharmaceuticals-usa-comparison-idUSKCN0S61KU201510102}

\textsuperscript{35} \textit{http://meetinglibrary.asco.org/content/164423-176}

\textsuperscript{36} Why the U.S. Pays More Than Other Countries for Drugs: Norway and other state-run health systems drive hard bargains, and are willing to say no to costly therapy. By Jeannie Whalen, Updated Dec. 1, 2015 \textit{http://www.wsj.com/articles/why-the-u-s-pays-more-than-other-countries-for-drugs-1448939481}
Gilenya (multiple sclerosis), 50% for Celebrex (pain), 27% for Cymbalta (depression), and 11% for Nexium (acid reflux).  

<table>
<thead>
<tr>
<th>IFHP 2015 Survey</th>
<th>South Africa</th>
<th>Spain</th>
<th>Switzerland</th>
<th>United Kingdom</th>
<th>US</th>
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</thead>
<tbody>
<tr>
<td>Xarelto (blood clots)</td>
<td>$48</td>
<td>$101</td>
<td>$102</td>
<td>$126</td>
<td>$292</td>
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<tr>
<td>Humira (arthritis)</td>
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<td>$1,253</td>
<td>$822</td>
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<td>Harvoni (hepatitis C)</td>
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<td>$16,861</td>
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<td>Truvada (HIV/AIDS)</td>
<td>NA</td>
<td>$559</td>
<td>$906</td>
<td>$689</td>
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<td>Tecfidera (multiple sclerosis)</td>
<td>NA</td>
<td>$1,399</td>
<td>$1,855</td>
<td>$663</td>
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<td>Avastin (cancer)</td>
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<td>$1,534</td>
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<td>OxyContin (pain)</td>
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<td>$95</td>
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<th>Canada</th>
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<tr>
<td>Enbrel (Autoimmune diseases)</td>
<td>$1,017</td>
<td>$1,117</td>
<td>$1,386</td>
<td>$1,509</td>
<td>$1,563</td>
<td>$1,646</td>
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<td>Gleevec (cancer and Leukemia)</td>
<td>$3,633</td>
<td>$2,697</td>
<td>$3,348</td>
<td>$3,321</td>
<td>$989</td>
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<td>$164</td>
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<td>$225</td>
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<td>Cymbalta (depression)</td>
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<td>$46</td>
<td>$71</td>
<td>$52</td>
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<td>$58</td>
<td>$23</td>
<td>NA</td>
<td>NA</td>
<td>$215</td>
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37 IFHP: 2015 Comparative Price Report  
http://static1.squarespace.com/static/518a3cf4ee4b0a77d03a62c98/t/578d34649de4bb15e7a9f2e2/1468871781348/2015+Comparative+Price+Report_Final+071516.pdf; and  
Real World Impacts of High Drug Prices

We’re starting to see the term ‘financial toxicity’ being used in the literature. Individual patients are going into bankruptcy trying to deal with these (drug) prices.38

Dr. Leonard Saltz, gastrointestinal oncologist, Memorial Sloan Kettering Cancer Center

The relentless inflation of drug prices has caused real pain and hardship for Americans in need of medication and their families. The CDC estimates that nearly one in 10 Americans do not take their medication as prescribed in order to save money, while the Commonwealth Fund estimates that as many as 35 million Americans skipped prescriptions due to cost.39 Researchers at the University of North Carolina report more than one-quarter of cancer patients can't afford to pay for their treatment, and nearly one in five can't afford their prescriptions.40 Astronomically high drug prices are obviously endangering the health and well-being of millions of patients in the United States. A particularly egregious example of the health consequences of sky-high drug prices is the rationing of the new treatments for hepatitis C for those who are Medicaid beneficiaries or in prison. As these patients wait to get sick enough to qualify for the new drugs, many will develop cirrhosis, liver cancer, or liver failure.41

Expensive drugs are increasing the financial burdens for Americans who need medicine. According to a Kaiser Family Foundation survey, a quarter of all Americans taking medication report they are struggling to pay for their drugs. For the sickest among us, the burden is heaviest – 43% of those in poor health report difficulty paying for their medication.42 Simply having insurance is no longer protection from the financial ruin that high drug prices can inflict, as those costs are increasingly being passed along to patients through insurance companies either limiting drug coverage or raising premiums and deductibles.43 The increasing financial distress, often leading to bankruptcy, not only makes life more difficult for the sick, but leads to worse health outcomes and higher mortality rates.44
A Better Way Forward – Prop 61

Skyrocketing drug prices and the premium US buyers pay over other nations is a clear indication that the US is not driving a hard enough bargain with the pharmaceutical industry. Medicare is statutorily restricted from negotiating with drug manufacturers in spite of the fact that it is by far the biggest buyer of prescription medications in the US, and one of the biggest in the world. Researchers have concluded that the federal government could save $21.9 billion to $22.8 billion annually if Medicare negotiated with drug manufacturers and achieved the same prices as those paid by the Veterans Health Administration, which does negotiate over drug prices. Other researchers have suggested that Medicare would save $541 billion over 10 years if prices were negotiated down to the levels paid for prescription drugs by consumers in Denmark (a nation of 5.6 million – Medicare serves 55 million seniors).

Tackling runaway drug prices is a complicated and long-term project, and will ultimately only be solved by transforming our fractured and convoluted system of drug procurement into a single-payer model through expanding Medicare to all Americans. In the near-term, an obvious first step to out-of-control drug prices may be to start using the market power of government programs, particularly Medicare and Medicaid, to hold the pharmaceutical industry accountable. This avenue of reform, however, has largely been cut-off by the outsized political influence of the pharmaceutical industry, which spends billions protecting its interests on Capitol Hill and in the various statehouses. In California, healthcare and consumer advocates are attempting to sidestep the political dysfunction with a ballot initiative called the Drug Price Relief Act, or Proposition 61. It proposes that state agencies be blocked from paying more for prescription drugs than the prices paid by the Veterans Health Administration. This simple initiative, if passed, will undoubtedly have broad implications for drug pricing in California and beyond. In a 2005 study, the Congressional Budget Office calculated that federal programs that negotiate prices—including the VA—paid, on average, half as much for brand-name drugs as retail pharmacies. If the initiative proves successful in California, the demand for the VA discount rate will likely extend to other state and government programs, and even to private entities – potentially making drugs more affordable nationwide. This relief would be a major step in the right direction, and one desperately needed given the dramatic inflation in the price of medicine.

Note: All URLs were accessed in August and September of 2016