Its Still The Prices Stupid: Observations on Health Care Spending in the US

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@N_Brennan
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HCCI’s mission is to *get to the heart* of the key issues impacting the U.S. health care system — by using the best data to get the best answers.

Our values are simple:

- Health care claims data should be accessible to all those who have important questions to ask of it.
- Health care information should be transparent and easy to understand.
- All stakeholders in the health care system can drive improvements in quality and value with robust analytics.

*HCCI reports cost trends and facilitates informed debate about the less-understood commercially-insured population*
HCCI 1.0 Data Holdings

**Commercial Claims**
- Years: 2008-2017
- All 50 states and D.C.
- Updated annually
- De-identified, HIPAA and anti-trust compliant

**Medicare Fee-For-Service Claims**
- National Qualified Entity (QE)
- Years: 2012-2017
- 100% Parts A & B & D
HCCI 2.0 Data Holdings

Commercial Claims
- Years: 2012-2018
- All 50 states and D.C.
- Updated annually
- De-identified, HIPAA and anti-trust compliant

Medicare Fee-For-Service Claims
- National Qualified Entity (QE)
- Years: 2012-2018
- 100% Parts A & B & D

ESI 65M

FFS Medicare 40M
HCCI Governance

Independent Board

- **Bob Town, UT-Austin, Chair**
- Mike Chernew, Harvard
- Leemore Dafny, Harvard
- Roy Goldman, President, Society of Actuaries
- Aneesh Chopra, Entrepreneur, former White House CTO
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- Marshall Votta, Nautic Partners
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Weill Cornell Medicine | Northwestern

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HCCI also facilitates data access and research through foundation partnerships:

The Commonwealth Fund | Robert Wood Johnson Foundation

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Share of GDP Spent on Health Care

National Health Expenditure as a Share of Gross Domestic Product, 1960-2017

SOURCE: Centers for Medicare & Medicaid Services, Office of the Actuary, National Health Statistics Group
Health Care Reform Efforts in the US

THE BLAME GAME
Some Observations on the Status Quo

• Americans are indefatigable when it comes to optimism and new ideas about controlling health care costs
• BUT
  • NOTHINGS WORKING
  • And that optimism means everyone thinks reform can be achieved without hurting them / hurting anyone
• Quality!
• Patient Responsibility!
• Value-based Care!
• Transparency!
• Disruption!
• Innovation!
It’s The Prices, Stupid: Why The United States Is So Different From Other Countries

Higher health spending but lower use of health services adds up to much higher prices in the United States than in any other OECD country.

by Gerard F. Anderson, Uwe E. Reinhardt, Peter S. Hussey, and Varduhi Petrosyan
Figure 4: Cumulative Change in Spending per Person, Utilization, and Average Price by Service Category

Note: Utilization and average prices account for changes in the type or intensity of services used, with the exception of prescription drugs. Prescription drug spending is the amount paid on the pharmacy claim, which reflects discounts from the wholesale price, but not manufacturer rebates.
What Factors Drove Health Care Spending Increases?

- After accounting for inflation, health care spending increased $610 over the five-year period.

- Price growth accounted for just about three-quarters ($453) of the cumulative increase above inflation over the five-year period.

- Increases in the quantity of services used accounted for 21% ($130) of the cumulative increase beyond inflation, with much of that contribution coming in the last year of the period.

- The population with employer-sponsored insurance got slightly older and slightly more female on average between 2014 and 2018, which accounted for just over 4% ($27) of the growth above inflation in spending per person.
LA Ranked 29th Highest State, Spending $5,718 per Person in 2018
Spending Growth in LA was lower than the National Average from 2014 to 2018.
Louisiana had lower spending growth than neighboring states

LA had lower spending growth than the national average for all service categories. Inpatient spending decreased.

Outpatient spending increased faster in TX

MS also had spending growth below the national average
LA 2018 Inpatient Spending $899 per person, 3rd lowest state
LA 2018 Outpatient Spending $1,671 per person, 25th highest state

2018 Spending per Person by Service Category

Average Annual Spending per Person on Outpatient Services in Louisiana

$1,671
LA 2018 Professional Spending $1,830 per person, 24th highest state
Project Overview:

- Compare how local health care markets function throughout the country
  - Analyzed over 1.8 billion commercial claims from 2012-2016

- Develop, publicly report a standard set of replicable measures:
  - Service Price, Service Use, Hospital Market Competition

- For each measure: interactive web articles, dashboards, public use files
  - Explore trends across 112 metro areas in 43 States
    - Including 4 metros within the state of Louisiana
Wide Variation in Prices Across U.S.

Overall Health Care Prices in U.S. Metros Relative to National Median, 2016

FIND A METRO: New Orleans-Metairie, LA

PERCENT DIFFERENCE FROM NATIONAL MEDIAN
-50%  |  |  |  | 50%

Metros Ranked by Price

New Orleans, LA
14% below the national median in 2016
Similar prices to Toledo, OH and Fayetteville, AR
Prices Growing Almost Everywhere

Comparing Overall Price and Use Changes, 2012 - 2016

FIND A METRO: New Orleans-Metairie, LA

HIGHLIGHT A SERVICE TYPE: Overall, Inpatient, Outpatient, Professional

Change in Price by Metro

New Orleans-Metairie, LA

Change in Price: +11%
However, use declining largely everywhere.
Held True throughout Louisiana

All 4 metro areas in Louisiana experienced a growth in prices & decline in use

- **Prices**
  - Lafayette (+5%) lowest growth rate, New Orleans & Shreveport (+11%) both had highest

- **Use**
  - Shreveport (-8%) smallest decline, New Orleans (-25%) largest

<table>
<thead>
<tr>
<th>Metro Area</th>
<th>% Change in Price</th>
<th>% Change in Use</th>
</tr>
</thead>
<tbody>
<tr>
<td>Baton Rouge</td>
<td>+9%</td>
<td>-16%</td>
</tr>
<tr>
<td>Lafayette</td>
<td>+5%</td>
<td>-23%</td>
</tr>
<tr>
<td>New Orleans-Metairie</td>
<td>+11%</td>
<td>-25%</td>
</tr>
<tr>
<td>Shreveport-Bossier City</td>
<td>+11%</td>
<td>-8%</td>
</tr>
</tbody>
</table>
Compare Health Care Prices, Use Levels and Growth in Select Metros

Baton Rouge, LA
- 2016 Overall Levels:
  - Price: -8% below median
  - Use: -5% below median
- Overall growth since 2012:
  - Price: +9%, Use: -16%

New Orleans-Metairie, LA
- 2016 Overall Levels:
  - Price: -14% below median
  - Use: 2% above median
- Overall growth since 2012:
  - Price: +11%, Use: -25%

Shreveport-Bossier City, LA
- 2016 Overall Levels:
  - Price: -12% below median
  - Use: 2% above median
- Overall growth since 2012:
  - Price: +11%, Use: -8%
Prices and Use Varied by Service Category Within Metros

Price and Use Levels *Within* Metro Areas by Service Categories, 2016

<table>
<thead>
<tr>
<th>Baton Rouge, LA</th>
<th>Category</th>
<th>Use</th>
<th>Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overall</td>
<td>-5%</td>
<td>-8%</td>
<td></td>
</tr>
<tr>
<td>Inpatient</td>
<td>-38%</td>
<td>-17%</td>
<td></td>
</tr>
<tr>
<td>Outpatient</td>
<td>-4%</td>
<td>-14%</td>
<td></td>
</tr>
<tr>
<td>Professional</td>
<td>+7%</td>
<td>+1%</td>
<td></td>
</tr>
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</table>
Majority of Inpatient Hospital Markets were Highly Concentrated

Inpatient Hospital Market Concentration in U.S. Metros, 2016

New Orleans-Metairie, LA

Where else did patients get care?
PERCENT OF ADMISSIONS
0-10%  10-20%  20%+

New Orleans, LA
RANK  2016 HHI
71  0.2794

PATIENT DESTINATION
95.2%  4.8%
Within Metro  Outside Metro

MAJOR DESTINATIONS
Baton Rouge, LA
Most Hospital Markets Became More Concentrated Over Time

Change in Hospital Market Concentration

Change in HHI from 2012–2016 by U.S. Metro

New Orleans, LA
0.1944 0.2794

Baton Rouge, LA
0.3266 0.3245
Compare Market Concentration Level by Metro and Over Time

Inpatient Hospital Concentration in U.S. Metros, 2016

**New Orleans-Metairie, LA**
- 2016 HHI: 0.2794
- Change in HHI since 2012: +0.0849

**Baton Rouge, LA**
- 2016 HHI: 0.3266
- Change in HHI since 2012: -0.0379

**Shreveport-Bossier City, LA**
- 2016 HHI: 0.2797
- Change in HHI since 2012: +0.0041
Price Levels Don’t Necessarily Capture Variation in Prices of Different Services Within Areas
Price Levels Don’t Necessarily Capture Variation in Prices of Different Services Within Areas

The New York Times

They Want It to Be Secret: How a Common Blood Test Can Cost $11 or Almost $1,000
10 Years of ER Spending – prices and coding

Spending per Person more than doubled in 10 years

Overall ER Use did not change over the 10 years, but the mix of CPT codes billed did.

- High Severity: 225% increase
- Low Severity: 136% increase

Change in visits per 1,000 people since 2008:
- 99281: -35%
- 99282: -16%
- 99283: 0%
- 99284: 78%
- 99285: 184%
Median increase in point-of-sales prices for common insulin products between 2012 and 2016 was 92%.

<table>
<thead>
<tr>
<th>Product</th>
<th>Delivery</th>
<th>Description</th>
<th>2012</th>
<th>2013</th>
<th>2014</th>
<th>2015</th>
<th>2016</th>
<th>5-yr Chg. (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Basal</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Humulin N</td>
<td>Vial</td>
<td>10mL, 100 units/mL</td>
<td>68</td>
<td>79</td>
<td>95</td>
<td>116</td>
<td>131</td>
<td>93%</td>
</tr>
<tr>
<td></td>
<td>Pen</td>
<td>5 pens, 3mL each, 100 units/mL</td>
<td>219</td>
<td>257</td>
<td>290</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>KwikPen</td>
<td>5 pens, 3mL each, 100 units/mL</td>
<td>314</td>
<td>370</td>
<td>415</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Novolin N</td>
<td>Vial</td>
<td>10mL, 100 units/mL</td>
<td>67</td>
<td>75</td>
<td>89</td>
<td>108</td>
<td></td>
<td>98%</td>
</tr>
<tr>
<td>Lantus</td>
<td>Vial</td>
<td>10mL, 100 units/mL</td>
<td>123</td>
<td>152</td>
<td>211</td>
<td>244</td>
<td>243</td>
<td></td>
</tr>
<tr>
<td></td>
<td>SoloStar Pen</td>
<td>5 pens, 3mL each, 100 units/mL</td>
<td>217</td>
<td>258</td>
<td>325</td>
<td>368</td>
<td>367</td>
<td>69%</td>
</tr>
<tr>
<td>Levenir</td>
<td>Vial</td>
<td>10mL, 100 units/mL</td>
<td>124</td>
<td>152</td>
<td>216</td>
<td>252</td>
<td>264</td>
<td>113%</td>
</tr>
<tr>
<td></td>
<td>FlexPen</td>
<td>5 pens, 3mL each, 100 units/mL</td>
<td>217</td>
<td>253</td>
<td>315</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td></td>
<td>FlexTouch</td>
<td>5 pens, 3mL each, 100 units/mL</td>
<td>353</td>
<td>380</td>
<td>398</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Toujeo</td>
<td>SoloStar Pen</td>
<td>3 pens, 1.5mL each, 300 units/mL</td>
<td></td>
<td></td>
<td></td>
<td>333</td>
<td>328</td>
<td></td>
</tr>
<tr>
<td>Tresiba</td>
<td>U-100 Pen</td>
<td>5 pens, 3mL each, 100 units/mL</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>440</td>
<td></td>
</tr>
<tr>
<td></td>
<td>U-200 Pen</td>
<td>3 pens, 3mL each, 200 units/mL</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>524</td>
<td></td>
</tr>
<tr>
<td><strong>Mealtime</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Humulin R</td>
<td>Vial</td>
<td>10mL, 100 units/mL</td>
<td>68</td>
<td>80</td>
<td>96</td>
<td>116</td>
<td>132</td>
<td>94%</td>
</tr>
<tr>
<td></td>
<td>U-500 Vial</td>
<td>20mL, 500 units/mL</td>
<td>563</td>
<td>804</td>
<td>961</td>
<td>1152</td>
<td>1319</td>
<td>134%</td>
</tr>
<tr>
<td></td>
<td>U-500 KwikPen</td>
<td>2 pens, 3mL each, 500 units/mL</td>
<td></td>
<td></td>
<td></td>
<td>513</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Novolin R</td>
<td>Vial</td>
<td>10mL, 100 units/mL</td>
<td>68</td>
<td>79</td>
<td>93</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Apidra</td>
<td>Vial</td>
<td>10mL, 100 units/mL</td>
<td>97</td>
<td>124</td>
<td>169</td>
<td>209</td>
<td>240</td>
<td>147%</td>
</tr>
<tr>
<td></td>
<td>SoloStar Pen</td>
<td>5 pens, 3mL each, 100 units/mL</td>
<td>196</td>
<td>244</td>
<td>332</td>
<td>408</td>
<td>466</td>
<td>138%</td>
</tr>
<tr>
<td>Humalog</td>
<td>Vial</td>
<td>10mL, 100 units/mL</td>
<td>127</td>
<td>147</td>
<td>178</td>
<td>213</td>
<td>241</td>
<td>90%</td>
</tr>
<tr>
<td></td>
<td>Cartridge</td>
<td>5 cart., 3mL each, 100 units/mL</td>
<td>235</td>
<td>271</td>
<td>334</td>
<td>398</td>
<td>449</td>
<td>91%</td>
</tr>
<tr>
<td></td>
<td>Pen</td>
<td>5 pens, 3mL each, 100 units/mL</td>
<td>247</td>
<td>285</td>
<td>346</td>
<td>415</td>
<td>469</td>
<td>90%</td>
</tr>
<tr>
<td></td>
<td>KwikPen</td>
<td>2 pens, 3mL each, 200 units/mL</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>381</td>
<td></td>
</tr>
<tr>
<td>Novolog</td>
<td>Vial</td>
<td>10mL, 100 units/mL</td>
<td>127</td>
<td>146</td>
<td>176</td>
<td>209</td>
<td>237</td>
<td>87%</td>
</tr>
<tr>
<td>Cartridge</td>
<td>5 cart., 3mL each, 100 units/mL</td>
<td>242</td>
<td>275</td>
<td>333</td>
<td>397</td>
<td>443</td>
<td>83%</td>
<td></td>
</tr>
<tr>
<td>FlexPen</td>
<td>5 pens, 3mL each, 100 units/mL</td>
<td>247</td>
<td>286</td>
<td>344</td>
<td>409</td>
<td>461</td>
<td>87%</td>
<td></td>
</tr>
</tbody>
</table>
Individuals enrolled in CDHPs have more dramatic month-to-month fluctuations in OOP spending on insulin.
Monthly cap on OOP spending on insulin would vary by health plan type and month.

Share of Enrollees with Monthly Out-of-Pocket Spending on Insulin Above Dollar Thresholds in LA 2017

- $25/month
- $50/month
- $100/month
- $200/month

CDHP Enrollees

Non-CDHP Enrollees
Medicare v Commercial Rates for Selected Services

Figure 1: Variation Across States and Metro Areas in 2017

Commercial ESI to Medicare Ratios - ER

State Commercial to Medicare Ratio of Average Allowed Amounts - Emergency Room

<table>
<thead>
<tr>
<th>CBSA Code</th>
<th>Type of Service</th>
<th>Average Allowed Amount Ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>99282</td>
<td>ER visit, low to moderately severe</td>
<td>Louisiana 494%</td>
</tr>
<tr>
<td>99283</td>
<td>ER visit, moderately severe</td>
<td>Baton Rouge 604%</td>
</tr>
<tr>
<td>99284</td>
<td>ER visit, high severity</td>
<td></td>
</tr>
<tr>
<td>99285</td>
<td>ER visit, significant threat to life or function</td>
<td></td>
</tr>
</tbody>
</table>

Ratios presented here show the mean in-network allowed amount (amount paid by insurer plus out-of-pocket payments from patients) paid by commercial employer sponsored insurance (ESI) divided by the mean allowed amount paid by Medicare fee-for-service in 2017. Allowed amounts used in this analysis do not include facility fees.

Commercial estimates are for specific emergency room (ER) procedures billed by emergency medicine specialists, anesthesia procedures billed by anesthesiologists, and radiology procedures billed by radiologists.
How do rising drug prices affect cost of care for people with MS?

Studying the implications of price changes of the most common drugs taken by people with MS.
Health care is the only sector of the American economy where you can lose market share and gain revenue.

From 2009 to 2015, spending on Copaxone increased by 70% despite decreased use.

Why? Prices more than doubled.

Source: HCCI, 2018