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A HealthStream Company

HCCA Compliance Institute


**Conflicts of Interest and Big Data:
 What Can We Learn from Large Databases of Provider Disclosures?**

Part I – Evaluating COI at the Macro Level

March 27, 2017


Agenda


- Introductions
- Understanding Conflicts of Interest
- What is “Big Data”?
- Big Data Meets Conflicts of Interest: The “Open Payments” Database
- Other sources of Big Data useful for the analysis of Conflicts of Interest
- How Big Data analysis is providing a trove of data for Journalists
- Use of Big Data at the Macro level
 - National and Regional Data Analysis



My Background

- 40 Years in Health Care
- MBA in Healthcare Management
- Medical Practice Manager
- Practice Plan Director at Temple, UCLA
- Consultant
- Co-Founder of HCCS
- VP HCCS/HealthStream





Understanding Conflicts of Interest



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Who is at Risk?

- Any organization that regularly acquires pharmaceuticals or medical devices
- Any organization that employs or provides a practice location for physicians
- Any organization conducting research funded by the federal government
- Any non-profit organization

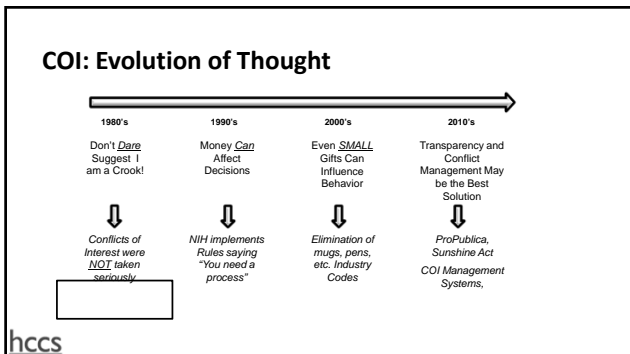
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What is at Risk?

- The Financial Health of your Institution
 - Research funding
 - Purchasing decisions
- Your Tax Exempt Status
 - Failure to accurately complete and file the IRS Form 990
- Your Reputation
 - Hospital conflicts of interest become big local news stories



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What is Big Data?

"Data of a very large size, typically to the extent that its manipulation and management present significant logistical challenges."

-Oxford English Dictionary

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What is Big Data?

"An all-encompassing term for any collection of data sets so large and complex that it becomes difficult to process using on-hand data management tools or traditional data processing applications."

- Wikipedia

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What is Big Data?

“The ability of society to harness information in novel ways to produce useful insights or goods and services of significant value”

- Viktor Mayer-Schönberger and Kenneth Cukier

“Big Data, A Revolution that will Transform How We Live, Work and Think”



Big Data Meets Conflicts of Interests

Implications of the “Sunshine” Database

- The CMS “Open Payments” Database was first published on September 30, 2014 and each June 30th since then
- Any payment over \$10.00 from the pharma or medical device industry to any Physician will become public information!



2015 Data from the “Sunshine” Database

The Facts About Open Payments Data



Other Sources of Available Data

In addition to the CMS Open Payments Database:

- National Provider ID Database
- Medicare Part D Prescriber Database
- Social Media: e.g. Google Search and Twitter!



Cleaning and Matching the Data

- CMS was prohibited from including the NPI in the Open Payments database BUT...
....they included names and addresses
- The NPI database included names and addresses allowing a 93% match
- Numerous iterations with state and other licensing agencies brought us to 97% match



Use of the Data for Analysis

Pretty Maps!

General Payments by Zip Code

(Source: CMS Open Payments)

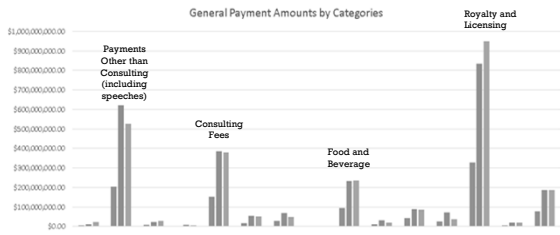


Use of the Data for Analysis



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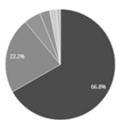
Use of the Data for Analysis



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Use of the Data for Analysis

One Doctor's Payments
Summary by Nature of Payment



Nature of Payment	Total Payments	Total Amount	Total Amount %
Compensation for services other than consulting, including serving as faculty or as a speaker at a non-accredited and non-approved continuing education program	222	\$483,795.23	68.8%
Travel and Lodging	484	\$154,214.64	22.2%
Consulting fee	15	\$34,325.00	4.9%
Food and Beverage	369	\$20,002.48	2.9%
Honoraria	7	\$14,375.00	2.1%
Compensation for serving as faculty or as a speaker for a non-accredited and non-approved continuing education program	5	\$7,700.00	1.1%
Education	3	\$20.78	0.0%

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Use of the Data for Analysis

Matching Industry Payments to Medicare Prescribing Patterns: An Analysis

Ryann Grochowski Jones and Charles Ornstein
ProPublica March 2016



Use of the Data for Analysis

Top five drugs prescribed, and the \$ spent to promote them:

- Blood thinner Xarelto (\$28.4 million),
- Rheumatoid arthritis drug Humira (\$24.9 million)
- Diabetes drug Invokana (\$20.9 million),
- Hepatitis C drug Viekira (\$19.2 million),
- Blood thinner Eliquis (\$18.8 million),



Use of the Data for Analysis

Table 1: Rate of doctors who received payments, by specialty

	Total doctors with >1,000 claim count	Subset who received an industry payment	Percent who received a payment
Family Medicine	65,651	46,753	71.2%
Internal Medicine	51,607	36,329	70.4%
Cardiology	13,817	12,308	89.1%
Psychiatry	11,052	8,650	78.3%
Ophthalmology	8,196	7,117	86.8%



Use of the Data for Analysis

Table 8: Mean brand-name prescribing rate, meals v. other payments only v. no payments

	Mean brand-name prescribing rate		
	No payments	Meals only	Other types of payments
Family Medicine	18.7%	19.8%	20.8%
Internal Medicine	19.8%	21.3%	22.8%
Cardiovascular Disease	19.2%	20.8%	22.2%
Psychiatry	13.6%	14.9%	15.8%
Ophthalmology	46.4%	56.0%	59.3%



Use of the Data for Analysis

Top Medicare Prescribers Rake In Speaking Fees From Drugmakers

Charles Ornstein, Tracy Weber and Jennifer LaFleur
ProPublica June 2013



Use of the Data for Analysis

- Nine of the top 10 prescribers of the Alzheimer's drug Exelon received money from Novartis, the drug's maker
- Eight of the top 10 for Johnson & Johnson painkiller Nucynta were paid speakers...
- As were six of the top 10 for Pfizer's antidepressant Pristiq.

Charles Ornstein, Tracy Weber and Jennifer LaFleur
ProPublica



Use of the Data for Analysis

January 17, 2017

Financial Conflicts of Interest Among Hematologist-Oncologists on Twitter

Derrick L. Tao, BS; Aaron Boothby, BS; Joel McLouth, BS; Vinay Prasad, MD, MPH

Author Affiliations

JAMA Intern Med. Published online January 17, 2017.

doi:10.1001/jamainternmed.2016.8467



Use of the Data for Analysis

A preliminary analysis of tweets by these doctors has shown that “a sizable percentage are tweeting about drugs that they have specific ties to”

- Vinay Prasad, assistant professor of medicine at Oregon Health & Science University



Use of the Data for Analysis: Closer to Home

Once you match NPI data to Open Payments Data you can run Hospital Level Reports

Report: 06 - Payment Summary	
Client:	Health System
Run Date/Time:	2/1/2017 7:25:52 PM ET
Version Date:	11/25/2015
Users With NPIs	5,708
Users Who Could Have Incorrect NPIs	1
Recorded in COI-SMART	
Matched To Open Payments	2,911
Physical Profile Count	2,907
Total Open Payments 2014 Amount	\$21,125,423.27
General Payments Count	2,717
Total General Payments Amount	\$9,714,274.24
Owner Payments Count	14
Total Ownership Payments Amount	\$1,312,301.31
Total Ownership Value	\$1,440,528.07
Research Payments Count	22
Total Research Payments Amount	\$769,330.81
Associated Research Funding Count	146
Total Associated Research Funding Amount	\$7,888,988.84



Use of the Data for Analysis: Closer to Home

Allowing you to identify trends, such as significant increases in industry payments year over year

Category	Count 2013	Count 2014	Count 2015	Amount 2013	Amount 2014	Amount 2015
General	1,038	2,497	2,263	\$903,782	\$1,644,339	\$3,828,504
Research	9	17	86	\$21,416	\$20,741	\$176,179
Ownership Associated Research	1	0	0	\$0.01	\$0.00	\$0.00
Totals	1,354	3,700	3,389	\$1,081,855	\$4,238,689	\$6,037,624





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Part II – Evaluating COI at Your Institution

March 27, 2017



Topics

- Background
- Reviewing Conflict of Interest Disclosures
- Using Data to Identify Highest Risk Disclosures
- Open Payments Analysis
- Results & Future Actions



About Carolinas HealthCare System



- One of Most Comprehensive Public, Not-for-Profit Systems in Nation
- More than 7,600 Licensed Beds at 900 Care Locations
 - Includes Physician Practices, Outpatient Surgical Centers, Hospitals, Freestanding Emergency Departments, Urgent Care, Behavioral Health, Rehabilitation Centers, Nursing Homes, Home Health Agencies, Hospice and Palliative Care
- Almost 12 million Patient Interactions Annually
- Employs Nearly 60,000 People



Who Needs to Disclose



- Any Position with Responsibilities for a Material Segment of the Operation, Management or Oversight of Carolinas HealthCare System
 - Physicians
 - Mid-Level Providers
 - Director Level and Above
- More than 5300 Teammates Received Questionnaire
 - 2500 Physicians





My Background


- 25 Years in Health Care
 - 6+ Years with Carolinas HealthCare System
 - 18 Years with Revenue Cycle Consulting Company
- Application Development
 - Hospital & Physician Contract Management
 - Budgeting & Cost Accounting
 - Work Plan Management



Analytical Tools






- Microsoft SQL Server
- Microsoft Access

One  Carolina HealthCare System

Create COI Database

- Created SQL Server Database to Store and Track 5000+ Respondents
- Automated Weekly Process to Upload Files

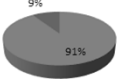


One  Carolina HealthCare System


Key Performance Indicators

- Response Rates
- Disclosures

Questionnaire Disclosure Rate



Category	Percentage
Without Disclosure	9%
With Disclosure	91%

One  Carolina HealthCare System

Review Process



- Establish Guidelines for Identification of Potential Conflicts
- Initial Reviews by Corporate Compliance
- Escalate Potential Conflicts to Conflict Of Interest Oversight Council
- Create Management Plans (if applicable)
- Administrative Follow-Up



Analysis to Create Review Guidelines



- North & South Carolina Regional Analysis
- Consulting Services & Speaker Engagements

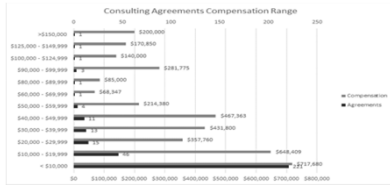
	Total	CHS	CHS Percent
Providers	2655	124	4.6%
Payments	\$44.7 MM	\$3.2 MM	5.9%
Mean	\$10,218	\$13,433	
Median	\$6,000	\$9,056	
Max	\$736,950	\$221,571	
Greater Than \$200K	24	2	8.3%
Greater Than \$100K	124	9	7.3%
Greater Than \$50K	269	18	6.7%



Analysis to Create Review Guidelines



- Understanding Compensation for Consulting Services & Speaking Engagements



Analysis to Create Review Guidelines

- Commitments of Time for Consulting Services & Speaking Engagements



Open Payments Analysis



- Integrate Open Payments Data
 - Use NPI to Match Carolinas HealthCare System's Physicians with Open Payments Data
 - Match and Compare Self-Disclosures using Drug and Medical Device Manufacturers
 - Non-Disclosures & Under-Reported Differentials Greater than \$5,000
- E-Mails to Physicians
 - Link to Open Payments Site



Data Transformation for Oversight Council Review

- Convert Answers for Each Question (Multiple Rows) in Report to Single Row for Ease of Review



Results & Future Actions



- Questionnaire Revisions
 - Open Payment Data Manufacturers Listed in Questionnaire to Improve Exact Matches
 - Coordinate Responses to Open Payments Categories
 - Consulting Fees, Speaking Engagements, Royalty or License, Education, Honoraria, Charitable Contribution, Travel & Lodging, Food & Beverage
- Policy Revisions
- Standard Operating Procedures



Question and Answer

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