

Medicare Payments

- Charles Lindquist
- Manager of Analytics @ Healthcare Bluebook





AGENDA

- Introduction & Background
- Medicare Provider Charge Data
 - Physician & Other Supplier
 - Hospital Outpatient
- Other Potentially Useful Datasets



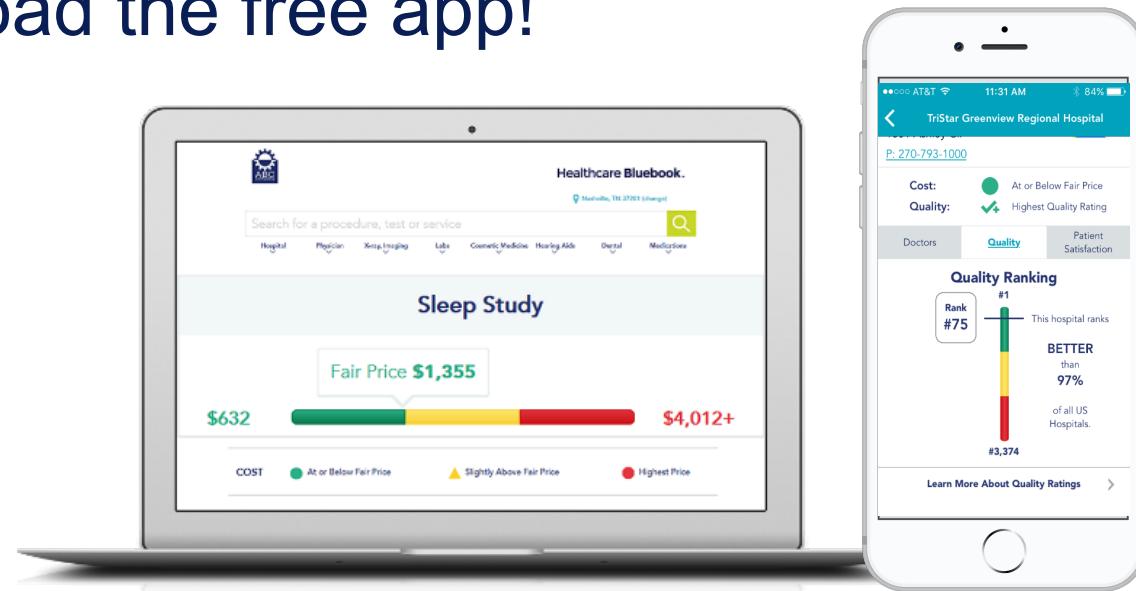
My Background

- Grew up in Atlanta
- Originally studied to be an actuary
- At Healthcare Bluebook since 2014
- Life outside of work



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- Protect Patients by Exposing the Truth and Empowering Choice
- Healthcare Price and Quality Transparency
- Download the free app!



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Medicare Provider Charge Data



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What is Medicare?

- Bill passed in 1965
 - All Americans over 65 would have access to health insurance
- Part A – Inpatient Hospitalization
- Part B – Outpatient Services
- Part C – Medicare Advantage (1997)
- Part D – Prescription Drug Coverage (2003)
- Currently ~15% of US Federal Budget



History of Open Data

- 1977 – HEW (predecessor to CMS) published list of all physicians and groups who were paid more than \$100K in total fees
- 1979 - American Medical Association (AMA) sued and stopped release of any more data on the grounds that it revealed physician salaries
- 1980-2010 – nothing happens



History of Open Data

- 2011 - FOIA filed (by Fred Trotter) to release doctor referral dataset (eventually called DocGraph/Hop Teaming)
 - Avoided injunction since didn't reveal physician salaries
- 2013 – President signs Executive Order
 - “data generated by the government be made available in open, machine-readable formats”
 - Data.gov
- 2013 – Wall Street Journal sues to dissolve 1979 injunction
- 2014 – Provider Utilization Data File released



Provider Utilization and Payment Data: Physician and Other Supplier



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Provider Utilization File

- Covers many fees paid by Medicare to non-Hospitals for given year
- Released annually (covers 2012-2017)
 - 2018 should be released in May or June
- Searchable by Provider, Procedure, and Location
- Tells you the following:
 - What did this Provider do?
 - How often did they do it?
 - How much were they paid?



IDs

- National Provider Identifier (NPI)
 - Last Name/Organization Name
 - First Name
 - Middle Initial
 - Credentials
 - Gender
 - Entity Type (I=Individual, O=Organization)
 - Street Address/City/State/Zip
 - Provider Type
- HCPCS Code (CPT Code/Procedure Code)
 - HCPCS Description
- Place of Service
 - In Office (O), or In Facility (F)



Measures

- Counts
 - Number of Services
 - How many times did they bill this code
 - Number of Medicare Beneficiaries
 - How many different patients was this code billed for
 - **Number of Distinct Medicare Beneficiary/Per Day Services**
 - How many distinct patient/day combinations do we have for this procedure
- Example
 - Doctor gives Spinal Injection to: Patient A on 3 different days, Patient B on 5 different days, and Patient C on 1 day (but 3 times on that day)
 - Number of Services = 11 ($3 + 5 + 3$)
 - Number of Medicare Beneficiaries = 3 ($1 + 1 + 1$)
 - Distinct Beneficiary/Per Day Services = 9 ($3 + 5 + 1$)



Measures (cont)

- Payments
 - **Average Medicare Allowed Amount**
 - How much did the Provider receive (from Medicare + any patient responsibility)
 - Average Submitted Charge Amount
 - What number did the Provider make up to put on the bill
 - Average Medicare Payment Amount
 - How much did the Provider receive (only from Medicare, ignoring anything from patient)
 - Average Medicare Standardized Amount
 - Same as above, with some standardization formulas applied
- Example
 - Doctor sees Patient A for an office visit and files a bill
 - Average Medicare Allowed Amount: \$100 (Medicare sets this rate by regulation)
 - Average Submitted Charge Amount: \$2,000 (↖_(ツ)_↗)
 - Average Medicare Payment Amount: \$80 (Patient responsibility is 20%)
 - Average Medicare Standardized Amount (\$79.76)



Entity Type

- THIS IS EXTREMELY IMPORTANT
- Represents who is getting paid for a service
 - I (Individual) – Fee for doctor doing the service
 - O (Organization) – Fee for cost of running the facility where procedure was performed
- Patients can end up getting multiple bills, one from an individual, one from the facility/organization
- Be careful when comparing Entity Type O to Entity Type I



Place of Service

- THIS IS ALSO EXTREMELY IMPORTANT
 - This column (and Entity Type) are responsible for 90% of bad analysis
- Where the procedure is done (and by who) impacts what Medicare pays
 - Place of Service O = Office
 - Typically (but not always) means that the bill represents full payment
 - Place of Service F = Facility
 - Typically means that this bill has been split between multiple providers, and this line only represents part of the overall bill



Entity Type & Place of Service: Surgery

Knee
Arthroscopy

HCPCS	Entity	PoS	Avg Allowed	Description
29881	I	F	\$462	Doctor Only
29881	O	F	\$1,164	Facility Only

Screening
Colonoscopy

HCPCS	Entity	PoS	Avg Allowed	Description
45378	I	F	\$210	Doctor Only
45378	I	O	\$389	Doctor & Facility
45378	O	F	\$430	Facility Only



Entity Type & Place of Service: Imaging

	HCPCS	Entity	PoS	Avg Allowed	Description
Chest X-ray	71020	I	F	\$11	Doctor Only
	71020	I	O	\$21	Doctor & Facility
	71020	O	F	\$13	Facility Only
	71020	O	O	\$23	Doctor & Facility



How to handle this

- Safest – only compare records where Entity Type and Place of Service match
- Safe exceptions
 - Imaging (anything where HCPCS starts with a “7”)
 - Can compare Entity Type O AND Place of Service O with Entity Type I AND Place of Service O



Formatting Tips

- Names formula I use
 - IF Entity_Type = O THEN Last_Name
 - IF Entity_Type = I THEN First_Name + “ “ + Middle Initial + “ “ + Last_Name + “ , “ + Credentials
- Zip Code
 - If formatted here as 9-digit - Take left 5 digits for standard zip code
 - Beware zips with leading zeros



Caveats and Limitations

- Derived from Medicare data
 - Consider who and what Medicare covers (and doesn't cover)
 - How does that affect the data you see?
- CMS (Center for Medicare & Medicaid Services) Privacy Policy
 - Any relationship with fewer than 11 different patients is suppressed
 - Can contain up to 40% of Medicare Providers



Provider Utilization and Payment Data: Hospital Outpatient



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Hospital Outpatient Payments

- Fees paid to Hospitals for a selected subset of services
 - NOT ALL Procedures are in this table
 - Unlike Physician/Other Supplier
- Released annually (covers 2011-2017)
 - 2018 should be released in August
- Searchable by Provider, Procedure
- Tells you the following:
 - What did this Provider do?
 - How often did they do it?
 - How much were they paid?



IDs

- Provider ID (NOT an NPI)
 - Provider Name
 - Provider Street Address/City/State/Zip
 - Provider HRR (Hospital Referral Region)
- APC (Procedure Group)
 - APC Desc



Measures

- Counts
 - **CAPC Services**
 - How many times did they bill this code
 - Beneficiaries
 - How many different patients was this code billed for
- Payments
 - Average Total Submitted Charges
 - What number did the Hospital make up to put on the bill
 - **Average Medicare Allowed Amount**
 - How much did the Provider receive (from Medicare + any patient responsibility)
 - Average Medicare Payment Amount
 - How much did the Provider receive (only from Medicare, ignoring anything from patient)
 - Outliers
 - Can ignore



Other Useful Datasets



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APC to CPT Crosswalk

- APC = Group of Related Procedures
 - All procedures in an APC are paid at the same rate
- Example: Level 2 Musculoskeletal Procedures (APC 5112)
 - 133 CPT codes
 - Bone fractures, joint repair, dislocations, arthroscopy, etc
- Not every HCPCS/CPT is assigned to an APC
 - Most important ones are
- APCs were renumbered in 2016
 - If you want to use Hospital Payment data from 2015 or earlier, you'll need a APC/HCPCS crosswalk from 2015
 - Or a crosswalk between 2015 and 2016 APCs



CBSA

- Good way to compare geographically nearby data
 - https://www.huduser.gov/portal/datasets/usps_crosswalk.html
- Mapping from Zip Code to area around a city
- Be careful of leading Zeros in Zip Codes!
 - Excel hates them
- Example: Nashville CBSA
 - Contains Nashville, Franklin, Hendersonville, Lebanon, Murfreesboro



Data.cms.gov

- Go exploring!



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Goals



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Goals Option 1

- How much are nearby Hospitals and ASCs paid for the same procedure?
- Filters for Physician/Other Supplier
 - Entity Type = O
 - Provider Type = Ambulatory Surgical Center
 - CPT = 43249
- Filters for Hospital Outpatient
 - APC = 5302
- Compare results within a CBSA



Option 1 Stretch Goals

- Extend to other HCPCS/APCs
 - Best place to start is to find an APC that is well-populated in the Hospital file
 - Next find a well-populated HCPCS from the APC in the Physician/Other Supplier File
- Compare Doctor Utilization for a procedure
 - Filters for Physician/Other Supplier
 - Entity Type = I
 - Place of Service = O
 - HCPCS = 99213 (or any office visit – 99211-99215 / 99201-99205)
 - How many different patients does each specialty typically see in a year? How does that vary by CBSA?



Goals Option 2

- Measure how payments and counts change over time
- Download 2015-2017 data (or earlier)
- Join columns for Physician/Other Supplier
 - NPI / HCPCS / Place of Service
- Which procedures had the largest change in Average payment? Utilization?



Option 2 Stretch Goals

- Include Hospitals in analysis
- Join columns for Hospital
 - Provider ID / APC
 - Remember APCs changed in 2016, so you'll need to convert old APCs from 2015 and before to the new APCs



Goals Option 3

- What procedures could be reasonably associated with each individual Provider Type?
 - Filters for Physician/Other Supplier
 - Entity Type = I
 - Place of Service = F and/or O
 - What is the normal ‘basket’ of procedures for each Provider Type?
- Which procedure codes drive the most revenue for each Professional Provider Types?
 - Exclude office visits



Option 3 Stretch Goals

- Create a process that predicts if an individual professional should be Provider Type ‘Orthopedic Surgery’ based on the procedure codes they have data for
 - How often does this data-driven expected Provider Type of ‘Orthopedic Surgery’ differ from the listed Provider Type for given professional?



QUESTIONS



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Appendix



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Data

- Physician & Other Supplier Payments
 - <https://www.cms.gov/Research-Statistics-Data-and-Systems/Statistics-Trends-and-Reports/Medicare-Provider-Charge-Data/Physician-and-Other-Supplier2017>
 - You want Detailed Data
- Hospital Outpatient
 - <https://www.cms.gov/Research-Statistics-Data-and-Systems/Statistics-Trends-and-Reports/Medicare-Provider-Charge-Data/Outpatient>
 - Detailed Data
- APC to CPT/HCPCS crosswalk
 - <https://www.cms.gov/Medicare/Medicare-Fee-for-Service-Payment/HospitalOutpatientPPS/Addendum-A-and-Addendum-B-Updates>
 - Addendum B – January 2020 (correction files aren't necessary)
- Zip Code to CBSA
 - https://www.huduser.gov/portal/datasets/usps_crosswalk.html
- Other
 - Data.CMS.gov

