

Home Health Agency Data and Analysis: Trials and Tribulations

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Presentation Objectives

- Why Home Health Agency (HHA)?
- Why Miami-Dade County?
- Proactive Data Analysis Algorithms for HHA Fraud Detection
- Program Safeguard Contract - Home Health Benefit in Miami-Dade, FL ZPIC Zone 7
- Data & Analysis and Lessons Learned

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Why Home Health Agency (HHA)?

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HHA Benefits


Home Health Care benefits are intended to provide medical care to beneficiaries in their homes. Common benefits include:

- Skilled Nursing (Revenue Codes 55X)
- Therapies
 - Physical (Revenue Code 42X)
 - Occupational (Revenue Code 43X)
 - Speech (Revenue Code 44X)
- Medical Social Work (Revenue Code 56X)
- Home Health Aid Services (Revenue Code 57X)

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HHA Eligibility



Eligibility for HHA services include the following:


- Billed services from HHA
- Confined to home (homebound)
- Under physician care
- Need skilled services
- Under physician's Plan of Care (POC)

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HHA Reimbursement

- Medicare buys episodes of care (normally 60 days)
- Prospective Payment System (PPS)
- No deductible or coinsurance are applied
- Payment based on Health Insurance Prospective Payment System (HIPPS) code developed from Outcome and Assessment Information Set (OASIS)
- Request for Anticipated Payment (RAP) is paid at beginning of claim
- Final claim reconciliation at the end of the episode of care



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Statistical Outlier vs. Cost Outlier

Statistical Outliers
"An observation that appears to be inconsistent with other observations in the data set."

V. Barnett and T. Lewis
Outliers in Statistical Data

Payment Outliers

- Additional payments on beneficiaries who incur usually large costs
- Imputed cost exceeds thresholds defined by case-mix groups
- Under Home Health PPS, National outlier payments are less than 5 percent of estimated total payments
- Value Code 17 in claim data

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HHA Expenditures - 2007

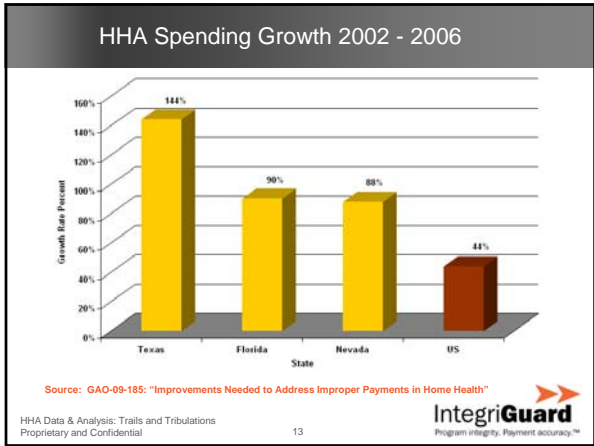
Total = \$ 58.5 B

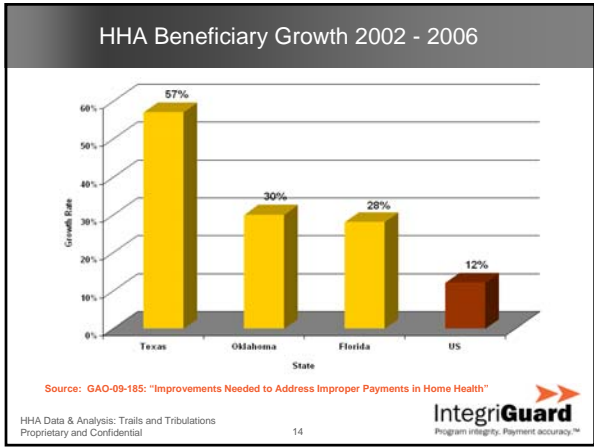
Medicaid \$20 B	Medicare \$23.8 B Fee for Service 15.7 B	Private, State, VA \$14.7 B
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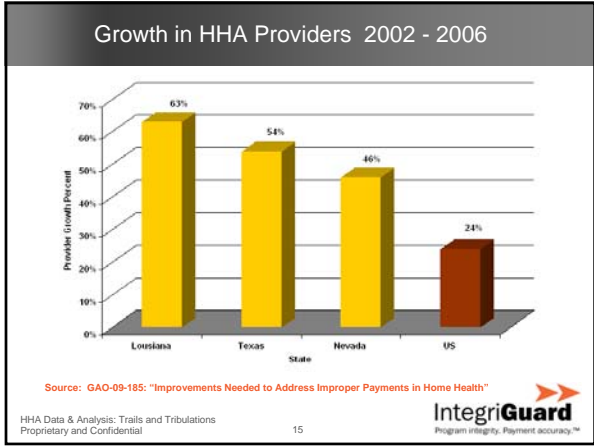
Source: National Health Expenditures (NHE)

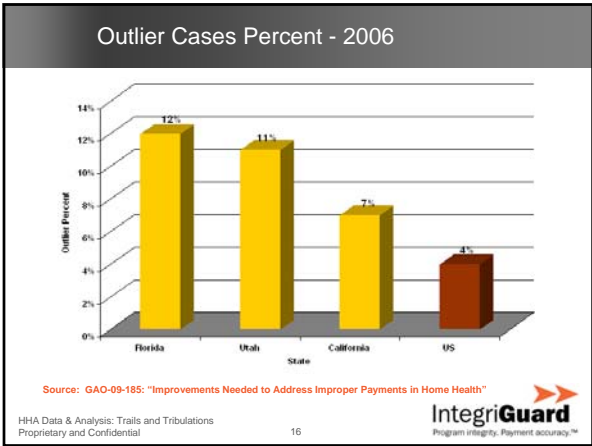
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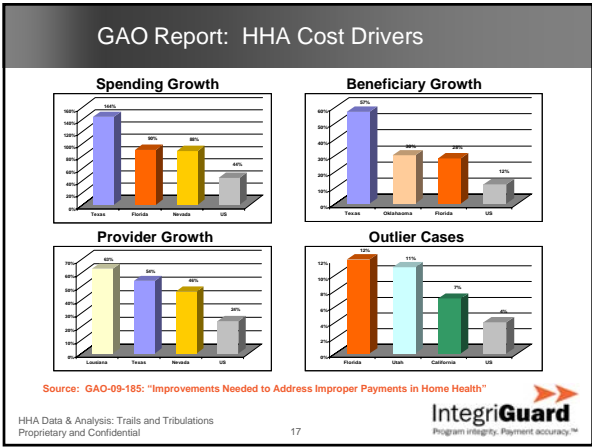
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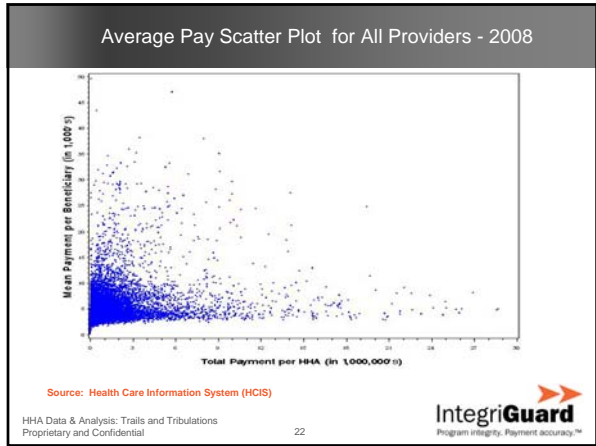






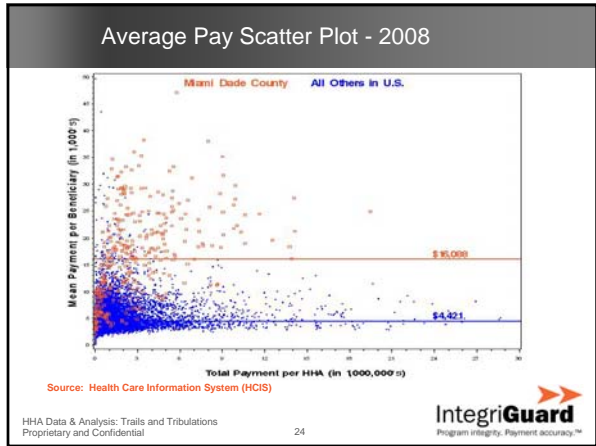


- ### HHA Fraud Schemes
- Payments (Kickbacks) to physicians for referrals
 - Payments (Kickbacks) by HHA to beneficiaries for use of Medicare ID numbers
 - Billing for services not rendered
 - Up coding – overstating severity of beneficiary condition
 - Billing for outlier cases when level of care was not required
 - Billing for beneficiaries who were not homebound
 - Billing for therapy visits that have been medically unnecessary
- Source: GAO-09-185: "Improvements Needed to Address Improper Payments in Home Health"
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Why Miami-Dade?

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Proactive Data Analysis Algorithms for HHA Fraud Detection



Scorecard Criteria


- Quartile scores: 1 (lowest) to 4 (highest)
- Z Scores: Cost outliers, Average paid claim per beneficiary and average number of visits per beneficiary
- Percentile – Claims paid
- Ratios – Diabetes percent
- Scorecard weights:
 - 1.0: Diabetes %, average paid claims per beneficiary, and average number of visits per beneficiary
 - 2.0: Claim dollars paid and cost outliers
- Scorecard value = sum of weights
- Top 35 providers identified based upon highest scorecard value



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Scorecard – Original Criteria

Provider Number	Beneficiaries	Dollars Paid (\$)	Cost Outlier (%)	Diabetes (%)	Ave. Claim (\$)	Average Visits
1	105	2,132,057	56	98	20,305	292
2	235	4,111,055	59	96	17,494	244
3	568	8,729,075	48	92	15,368	217
4	212	3,361,741	58	91	15,857	224
5	70	1,350,864	57	96	19,298	276
6	74	1,153,060	68	97	15,582	219
7	194	3,380,885	47	89	17,427	258
8	27	531,469	64	95	19,684	290
9	203	3,202,054	50	5	15,774	215
10	48	908,529	59	98	18,928	270
11	37	729,212	55	97	19,708	281
12	96	1,729,311	56	100	18,014	263



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Scorecard – Original Scores

Provider Number	Dollars Paid	Cost Outlier	Diabetes Score	Average Claim	Average Visit	Total Score
1	3	3	4	4	4	24
2	4	3	4	3	3	24
3	4	3	3	3	3	23
4	4	3	3	3	3	23
5	2	3	4	4	4	22
6	2	4	4	3	3	22
7	4	3	2	3	3	22
8	1	4	3	4	4	21
9	4	3	1	3	3	21
10	1	3	4	4	4	20
11	1	3	4	4	4	20
12	2	3	4	3	3	20

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Home Health Miami-Dade Florida ZPIC Zone 7

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- ### HHA – Miami-Dade Task Order Process
- Data Analyst – Determine Provider Rankings
 - Rounds – Top 6 Providers per Round
 - Data Analyst - HHA Claims Headers and HHA Revenue Lines plus
 - Statistician - Statistically Valid Random Sample (SVRS)
 - Beneficiary Histories - Part A, Part B, DME Claim Detail
 - Investigators - Beneficiary Interviews to Determine Homebound
 - Suspension Target – 5 Non-Homebound Beneficiaries
 - Medical Reviewers - Determine Medical Reimbursement based on Review of Medical Records/Documentation
 - Statistician – Calculate Overpayment Extrapolated from SVRS
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Data & Analysis Lessons Learned....

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Scorecard – KISS




- KISS - Keep it Simple Stupid – Scorecard
- Eliminate the Z Scores
- Eliminate the Weights
- Eliminate other Criteria (Diabetics, Claims Paid, etc.)
- Simple Ranking By to Outlier % - Sorted Descending Order

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Round 1 and 2 – Too Much Data!



- Initial NCH Query in STARS
 - HHA Claims Headers (150 to 1,300)
 - HHA Claims Revenue Lines (21,000 to 182,000)
 - Part A Claims Revenue Lines
 - Part B Claims Service Lines
 - DME Claims Service Lines
- As much as 1 to 140 Ratio of Header Records to Revenue Lines
- STARS Platform Limitations
 - Limited Storage Capacity
 - Limited Processing Capacity

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Round 1 and 2 – Too Much Data - Solution

- Pull the HHA Claim Header Records - Universe
- Send the Provider Claims Universe to SGS Statistician
- Statistician Develops the Beneficiary-Based SVRS
- Statistician Sends SVRS to Data Analysts
- Data Analyst Pull HHA Claims Revenue Lines and Beneficiary History (Part A, Part B, and DME) based on Beneficiaries in the SVRS

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Round 3 – Too Many Claims for Med Review

- Beneficiary-Based SVRS too Large – Overloading Medical Review
- Switch to Claims-based SVRS
- Use different Stratum
- Reduced Sample Size to 30 to 45 Claims
- Use of Extra/Alternate Claims Sample

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**Missing Claim Revenue Data:
I'm Seeing STARS!**


- New Process
 - Missing HHA Claims Revenue Lines after Receiving the SVRS
- Time Delay Between HHA Claim Header Records and Revenue Lines are Pulled – 1 to 2 Weeks
- Monthly STARS Update Calendar
 - ~ 10-Day Update Process
- Missing Claims Revenue Lines
 - Header Claims Pull and Revenue Line Pull Straddle the STARS Update Window
- STARS Update Process – Production Database

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**Missing Claim Revenue Data:
I'm Seeing STARS... Solution**

- Avoid Straddling the STARS Update Window
 - Ensure that the Claims Header Records and Claims Revenue Lines are Pulled before or after the STARS Update Process
- 10 out of 30 Days – 1/3 of the Month Unavailable
- Increased Time Pressure for SGS Statistician and IntegriGuard Data Team
- Reduced Productivity



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The STARS Shine Bright!

- STARS Replatforming
 - Increased Processing Speeds
 - Increased Storage Capacity
 - Quicker Update Cycle
 - Smaller Update Processing Window (from 10 days to 2 - 3 days)

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Previous Presentations to CMS

- CMS Request – Update Tri Centurion HHA Slides
 - Comparison of 5 Major Metropolitan Areas
 - Growth Trends of 5 Major Metropolitan Areas
 - Comparison of Miami-Dade County to Florida

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Previous Presentations to CMS

- What is a City?
 - United States Postal Service (USPS) – ZIP Code-based Definition
 - Metropolitan Service Areas (MSA)
- How is the Outlier Percentage Calculated?
 - Total Dollars Paid for HHA Claims with Outlier Payments (Value Code 17)
or
 - Outlier Dollars Paid for HHA Claims (Sum of Outlier Payment Dollars - Value Amount when Value Code = 17)

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Bill Types: When are Final Action Claims Final?

- Initial STARS Data Query Criteria – TOB = 329, 339
- HHA Final Action Claims Type of Bill (TOB)
 - 329 - HHA - Inpatient (Medicare Part B Only); Final Claim for Home Health PPS Episode
 - 339 - HHA - Outpatient; Final Claim for Home Health PPS Episode
- Missing some HHA Claims in Monthly Reports

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Bill Types: When are Final Action Claims Final?

- Expand Queries to Included Adjusted HHA Claims
- Use new STARS 2-Digit TOB field along with Claim Frequency Code
 - TOB = 32X,33X
 - Claim Frequency Code = 7, 9, G, I, J
- Captures a more complete picture of provider's claims totals
- Provides for larger overpayment totals


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What Impact Are We Having?

Inquiring minds want to know....

CMS wants to know!



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What Impact Are We Having?



We Can't See the Forest For the Trees....

- 60-day HHA episodes
- Delayed billing – 90 days or more from end of episode (RAP Payment – 50-60% upfront)
- Delayed processing – STARS data up to 2 months behind (before replatforming)
- Adjustments to paid claims
- Real results cannot be determined for 6-12 months after any action taken
- STARS NCH data shows dollars held in escrow as paid claims

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What Impact Are We Having?

The Demographics are Against Us....

- Aging Baby Boomer population – Increase in # of beneficiaries
- Florida is a popular retirement state - Increase in # of Beneficiaries
- Miami-Dade has an increase in # of HHA providers



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What Impact Are We Having? Too Much Data is Not Good....

	Amt Billed	Amt Paid	Units Billed	Total Claims	Unique Beneficiaries	Units per Beneficiary	Amt Billed per Beneficiary
October 2007	\$ 128,586,854	\$ 81,199,059	4,457,103	11,233	11,164	399.24	\$ 11,518
November 2007	\$ 132,478,688	\$ 83,447,184	4,307,134	11,390	11,314	385.11	\$ 11,709
December 2007	\$ 131,857,462	\$ 82,168,454	4,448,942	11,108	11,048	402.69	\$ 11,917
January 2008	\$ 137,764,631	\$ 86,787,530	4,462,466	12,158	12,086	369.23	\$ 11,399
February 2008	\$ 111,563,175	\$ 73,801,152	3,601,394	10,911	10,857	331.71	\$ 10,276
March 2008	\$ 108,652,437	\$ 75,370,226	3,609,847	11,413	11,328	318.67	\$ 9,690
April 2008	\$ 107,905,869	\$ 74,900,089	3,511,205	11,252	11,182	314.01	\$ 9,650
May 2008	\$ 114,357,314	\$ 79,096,477	3,747,838	11,696	11,626	322.37	\$ 9,836
June 2008	\$ 110,851,712	\$ 76,568,053	3,596,873	11,318	11,229	320.32	\$ 9,972
July 2008	\$ 115,892,120	\$ 81,212,984	3,789,473	11,856	11,819	320.63	\$ 9,806
August 2008	\$ 116,876,143	\$ 78,796,999	3,710,014	11,471	11,400	325.44	\$ 10,165
September 2008	\$ 106,001,259	\$ 76,087,603	3,448,940	11,345	11,284	305.65	\$ 9,394
October 2008	\$ 108,235,991	\$ 76,960,519	3,476,396	11,348	11,229	309.59	\$ 9,639
November 2008	\$ 97,454,311	\$ 70,016,279	3,127,930	10,206	10,160	307.87	\$ 9,692
December 2008	\$ 101,018,366	\$ 71,891,571	3,214,833	10,556	10,528	305.36	\$ 9,695
January 2009	\$ 100,951,403	\$ 73,972,644	3,230,478	10,940	10,878	298.97	\$ 9,280
February 2009	\$ 85,066,274	\$ 61,882,973	2,739,273	9,470	9,430	290.48	\$ 9,021
March 2009	\$ 88,313,659	\$ 64,369,161	2,757,176	9,603	9,556	288.53	\$ 9,242

Source: CMS National Claims History/STARS - 07/09
Date of Service: 01.01.08-12.31.08; Processed dates: 01.01.09-07.31.09

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What Impact Are We Having?

	Amt Billed	Amt Paid	Units Billed	Total Claims	Unique Beneficiaries	Units per Beneficiary	Amt Billed per Beneficiary
4th Qtr-07	\$792,722,979	\$246,874,676	12,263,179	32,721	25,591	518.28	\$ 19,346
1st Qtr-08	\$358,980,243	\$235,958,768	11,673,707	34,492	26,302	443.83	\$ 13,848
2nd Qtr-08	\$333,174,895	\$230,354,619	10,855,916	34,266	26,107	415.82	\$ 12,760
3rd Qtr-08	\$337,789,521	\$235,087,486	10,948,427	34,712	26,218	417.59	\$ 12,883
4th Qtr-08	\$306,708,657	\$217,888,348	9,879,159	32,110	24,510	400.62	\$ 12,514
1st Qtr-09	\$274,331,336	\$200,224,778	8,726,927	30,013	23,658	368.88	\$ 11,596

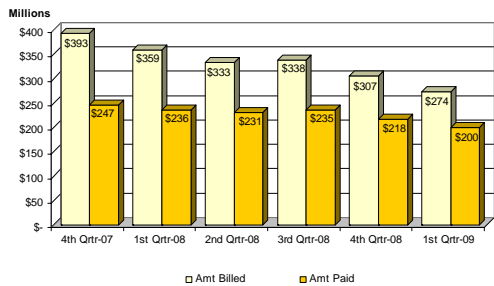
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What Impact Are We Having?



Source: CMS National Claims History/STARS - 07/09
Date of Service: 01.01.08-12.31.08; Processed dates: 01.01.09-07.31.09

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HHA – Miami-Dade Task Order Results-to-Date

Fraud Schemes

- Payments (Kickbacks by HHA to beneficiaries for use of Medicare ID Numbers)
- Up coding – overstating severity of beneficiary condition
- Billing for beneficiaries who were not home bound
- Billing for therapy visits that have been medically unnecessary

Results

- 31 HHA providers under investigation
- Almost 600 beneficiaries interviewed
- 20 provider suspensions
- HHA provider overpayments under consideration

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Questions?



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