Using FPSC Benchmark Data to Understand Academic Radiation Oncology

Robert C. Browne
Director, UHC-AAMC FPSC

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The FPSC in Brief

- Began as UHC CPT Database in 1995
- FPSC Advisory Group created in 2000
- FPSC created in 2001
- 87 participating institutions nationwide
- 65,000+ participating physicians
- 100+ unique subspecialties
- 200+ million records, 40 gigabytes of data
- Hundreds of performance measures
UHC-AAMC FPSC Participants

- Albany Medical Center
- Baystate Health System
- Beth Israel-Deaconess
- Brigham & Women’s
- Cedars-Sinai Medical Center
- Clarian Health Partners
- Columbia University
- Denver Health
- Duke University
- East Carolina University
- Georgetown University
- Howard University
- Indiana University
- Johns Hopkins University
- Kansas University Physicians
- LifeBridge Health
- Loyola University
- LSU Healthcare Network
- Massachusetts General
- Medical College of Georgia
- Medical College of Wisconsin
- Medical University of South Carolina
- Montefiore Medical Center
- Morehouse Medical Associates
- Mt. Sinai Faculty Practice Associates
- NLSU Health System
- Northwestern University
- Oregon Health and Science University
- Rush Medical College
- Saint Louis University
- Stanford University
- SUNY at Stony Brook
- SUNY Downstate
- SUNY Upstate
- The Emory Clinic
- The Methodist Hospital Physician Organization
- The Ohio State University
- Thomas Jefferson University
- Tufts Medical Center
- Tulane University Medical Group
- University of Alabama
- University of Arizona
- University of Arkansas
- University of California-Davis
- University of California-Irvine
- University of California-Los Angeles
- University of California-San Diego
- University of California-San Francisco
- University of Chicago
- University of Cincinnati
- University of Colorado
- University of Connecticut
- University of Florida
- University of Illinois
- University of Iowa
- University of Kentucky
- University of Louisville
- University of Maryland
- University of Massachusetts
- University of Miami
- University of Michigan
- University of Minnesota
- University of Mississippi
- University of Missouri – Columbia
- University of Missouri – KC
- University of Nebraska
- University of New Mexico
- University of North Carolina
- University of Oklahoma, OU Physicians
- University of Pennsylvania
- University of Rochester
- University of South Florida
- UTMB, Galveston
- University of Tennessee
- University of Texas San Antonio
- University of Toledo Physicians
- University of Utah
- University of Vermont
- University of Virginia
- University of Washington
- University of Wisconsin
- Vanderbilt University
- VCU School of Medicine/MCV Physicians
- Wake Forest University Physicians
- West Virginia University
- Weill Cornell Physician Organization
- Yale University
FPSC Benchmark Development Process – Key Goals

• Maximize sample size (both number of MDs and number of institutions represented)

• Ensure that sample reflects a population of clinically active faculty

• Generate a stable distribution (i.e., eliminate outliers)

• Identify relevant subpopulations
FPSC Benchmark Process Overview

By Participants

- Billing Data Transmitted to FPSC, RVUs Calculated
- Clinically Active MDs Selected for Inclusion in Benchmarking Pool
- Clinical Effort Reported For MDs Selected

By FPSC

- Candidate Physicians Identified for Benchmark Pool
- Specialty Specific Benchmark Measures Calculated
Automated Electronic Transfer Allows Efficient Data Capture

Participants send physician-level billing data to the FPSC. Data is electronically extracted and sent from the billing office.

**Data In (at the procedure-level):**

- Total Billings for each Procedure
- Site of Service for each Procedure
- CPT Code for the Procedure
- Payer Class for each Procedure
- CPT Code Modifiers
- ICD-9 Codes (first four)
- Frequency of Billed Procedure
- Patient MRN

Patient Demographics Data: age, sex, race, zip code
FPSC Applies Multi-Stage Validation and Standard Approach to Calculating RVUs

Data Out:

- Work RVUs
- Total RVUs
- Clinical Fingerprint
- Coding Distributions

FPSC Clean, Scrubs, Validates, and Converts CPT Frequencies into RVUs Using Standard Methodology
RVU Source Data

• Data Sources:
  - Medicare RBRVS Fee Schedule (period specific)
  - The Complete RBRVS, Relative Value Studies, Inc.

• Gap Filling:
  - Local charge: RVU ratio at specialty level –
    gives RVU credit to physicians performing unlisted procedures
What does CFTE Mean to You?

Clinical Full-Time Equivalent

OR

Constantly Fighting about Time and Effort

The Academic Conundrum:

Since faculty time is spread among clinical, research, teaching, and administrative activities, time and effort (T&E) must be normalized when benchmarking.
Among Approaches to Account for Faculty T&E, 3 Methodologies Most Common

- Time/schedule-based
- Self-reported via survey
- Salary-based
MDs in 2009 FPSC Radiation Oncology Benchmark Have Average CFTE of 82%
FPSC Designed to Address Common Pitfalls in Benchmarking Data

<table>
<thead>
<tr>
<th>Common Pitfalls:</th>
<th>FPSC Approach:</th>
</tr>
</thead>
<tbody>
<tr>
<td>• existing comparative data not reflective of AHC faculty groups</td>
<td>→ numerous faculty groups participating</td>
</tr>
<tr>
<td></td>
<td>→ broad scope of specialties</td>
</tr>
<tr>
<td></td>
<td>→ continuous feedback and refinement through member involvement</td>
</tr>
<tr>
<td>• inaccuracies of “survey” data</td>
<td>→ data submitted electronically</td>
</tr>
<tr>
<td>• missing or misclassified data</td>
<td>→ consistent methodology in RVU calculation</td>
</tr>
<tr>
<td>• significant year to year variability in existing comparative data</td>
<td>→ individual MD detail allows exclusion of outliers and analysis of coding behaviors</td>
</tr>
</tbody>
</table>
What Benchmark Measures Does the FPSC Provide?

- Work RVUs, Total RVUs, Billed Charges per 1.0 CFTE
- Evaluation and Management (E&M) Coding Distributions
- Scope and Mix of Services (Clinical Fingerprint)
- Charge Lag Analysis
- Charge Summary Statistics
- Revenue Cycle Performance—Collections, Denials, AR
- Payment Forecasting
- Custom Peer Cohort Benchmarking
- Others
Clinical Activity Highly Variable

Sample Departments vs. 2009 FPSC Benchmarks

Mean = 10,514

25th %tile: 8,212
Dept B: 9,165
Median: 10,463
Dept A: 11,822
75th %tile: 12,039
90th %tile: 15,420
Differential Diagnosis for Variable Clinical Activity

• **Operational barriers**
  – Lack of space, aging infrastructure
  – Variable operational support and resources
  – Clinical and non-clinical support staff shortages
  – New practice ramp-up
  – Patient no-shows

• **Visit mix and practice composition**
  – New vs. established patients
  – Procedures vs. E&M work
  – Faculty with part-time practices

• **Inconsistency coding and billing**
  – Under-coding
  – Incorrect modifier use
  – Unbilled services and procedures

• **Inefficiencies**
  – Training
  – Clinical processes
Percent New Patient Visits* Can Impact Productivity and Access

Sample Departments vs. FPSC Benchmarks

* Percent New Patients = (Count of 99201-205 + 99241-245) / (Count of 99201-205 + 211-215 + 241-245)
Key Benefits Of Focusing On Access For New Specialty Patients

- Improvement in payer mix and collections per unit of service by reducing access barriers that alienate favorably insured patients
- More work RVUs and total RVUs per unit of specialist time expended → increased revenue
- Greater volume of procedures per patient encounter through successful screening work-up of new patients
- Greater downstream professional fee and facility revenues from broadening patient base served
Practice Composition—Distribution of Services by CPT Code—Key Driver of Variability

<table>
<thead>
<tr>
<th>CPT Code Family</th>
<th>Dept A Mean</th>
<th>Dept B Mean</th>
<th>FPSC Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>Surgery</td>
<td>49</td>
<td>27</td>
<td>66</td>
</tr>
<tr>
<td>Radiology</td>
<td>10,931</td>
<td>7,811</td>
<td>9,189</td>
</tr>
<tr>
<td>Pathology &amp; Laboratory</td>
<td>5</td>
<td>-</td>
<td>0</td>
</tr>
<tr>
<td>Medicine</td>
<td>-</td>
<td>109</td>
<td>16</td>
</tr>
<tr>
<td>Evaluation &amp; Management</td>
<td>838</td>
<td>1,217</td>
<td>1,243</td>
</tr>
<tr>
<td>All CPT Ranges/Codes</td>
<td>11,822</td>
<td>9,165</td>
<td>10,514</td>
</tr>
</tbody>
</table>
Distribution of Services by CPT Code

Work RVUs per 1.0 cFTE, Radiation Oncology Codes

<table>
<thead>
<tr>
<th>Radiation Oncology CPT Codes</th>
<th>Dept A Mean</th>
<th>Dept B Mean</th>
<th>FPSC Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>77261-77263 -- Radiation therapy planning</td>
<td>831</td>
<td>610</td>
<td>694</td>
</tr>
<tr>
<td>77280 - Set radiation therapy field -- simple</td>
<td>196</td>
<td>113</td>
<td>102</td>
</tr>
<tr>
<td>77285 - Set radiation therapy field -- intermediate</td>
<td>-</td>
<td>-</td>
<td>4</td>
</tr>
<tr>
<td>77290 - Set radiation therapy field -- complex</td>
<td>318</td>
<td>322</td>
<td>350</td>
</tr>
<tr>
<td>77295 - Set radiation therapy field -- 3 dimensional</td>
<td>702</td>
<td>182</td>
<td>590</td>
</tr>
<tr>
<td>77300 - Radiation therapy dose plan</td>
<td>1,204</td>
<td>658</td>
<td>790</td>
</tr>
<tr>
<td>77301 - Radiotherapy dose plan, imrt</td>
<td>389</td>
<td>593</td>
<td>447</td>
</tr>
<tr>
<td>77305-77321 -- Teletx isodose</td>
<td>202</td>
<td>156</td>
<td>116</td>
</tr>
<tr>
<td>77326-77331 -- Other special services</td>
<td>25</td>
<td>52</td>
<td>186</td>
</tr>
<tr>
<td>77332 - Radiation treatment aid(s) -- simple</td>
<td>32</td>
<td>20</td>
<td>20</td>
</tr>
<tr>
<td>77333 - Radiation treatment aid(s) -- intermediate</td>
<td>1</td>
<td>7</td>
<td>8</td>
</tr>
<tr>
<td>77334 - Radiation treatment aid(s) -- complex</td>
<td>2,142</td>
<td>1,305</td>
<td>1,317</td>
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<tr>
<td>77421 - Stereoscopic x-ray guidance</td>
<td>84</td>
<td>674</td>
<td>89</td>
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<tr>
<td>77427 - Radiation tx management, x5</td>
<td>4,169</td>
<td>2,518</td>
<td>3,727</td>
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<tr>
<td>77431-77470 -- Other treatment management</td>
<td>488</td>
<td>310</td>
<td>440</td>
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<tr>
<td>77600-77790 -- Other</td>
<td>143</td>
<td>208</td>
<td>126</td>
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<tr>
<td>77261 - 77799 Radiation Oncology</td>
<td>10,926</td>
<td>7,729</td>
<td>9,006</td>
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Variable E&M Service Coding Can Translate Into Lost RVUs and Payment

*Outpatient Consultations—99241-245*
Variable E&M Service Coding Can Translate Into Lost RVUs and Payment

*Established Patient Visits*—99211-215
Reducing Coding Variance Can Increase Productivity and Revenue

<table>
<thead>
<tr>
<th>2010 NF Total RVU</th>
<th>99211</th>
<th>99212</th>
<th>99213</th>
<th>99214</th>
<th>99215</th>
<th>Total Visits/Payment</th>
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<tbody>
<tr>
<td>Medicare NF Rate</td>
<td></td>
<td></td>
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<tr>
<td>2010</td>
<td>0.53</td>
<td>1.08</td>
<td>1.82</td>
<td>2.73</td>
<td>3.68</td>
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<tr>
<td>$19.12 $38.97 $65.67 $98.51 $132.79</td>
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</table>

<table>
<thead>
<tr>
<th>Dept A Distribution</th>
<th>0.0%</th>
<th>50.1%</th>
<th>46.9%</th>
<th>2.8%</th>
<th>0.2%</th>
<th>2,000</th>
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<tbody>
<tr>
<td>Payment</td>
<td>$0</td>
<td>$39,042</td>
<td>$61,655</td>
<td>$5,517</td>
<td>$478</td>
<td>$106,691</td>
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<table>
<thead>
<tr>
<th>FPSC Mean Distribution</th>
<th>1.7%</th>
<th>13.6%</th>
<th>56.6%</th>
<th>23.8%</th>
<th>4.3%</th>
<th>2,000</th>
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<tbody>
<tr>
<td>Payment</td>
<td>$631</td>
<td>$10,616</td>
<td>$74,343</td>
<td>$46,950</td>
<td>$11,420</td>
<td>$143,960</td>
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</tbody>
</table>

Payment Increase at FPSC Mean Distribution $37,269 34.9%

• Under-coding and over-coding are of equal concern
• Appropriate documentation and coding are key
Optimizing Efficiency

• What role do part-time physicians play in your practice?
• What is the mix of new patient visits, consultations, and established patient visits?
• How is return visit frequency determined and managed?
• How do generalists assist in the management of chronic, stable patients?
• Are there services being rendered but not billed for?
• What impact do residents have on faculty productivity and volumes?
• What are the barriers to productivity in the academic radiation oncology practice setting?
Questions? Comments?

For additional information, contact:

Bob Browne
630-954-3797
browne@uhc.edu