



U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES

The Supplementary Appendices for the

Medicare

Fee-for-Service

2014 Improper

Payments Report

Appendix Organization

Appendix A: List of Acronyms

Appendix B: Projected Improper Payments and Type of Error by Type of Service for Each Claim Type

- Table B1: Top 20 Service Types with Highest Improper Payments: Part B
- Table B2: Top 20 Service Types with Highest Improper Payments: DMEPOS
- Table B3: Top 20 Service Types with Highest Improper Payments: Part A Excluding Inpatient Hospital PPS
- Table B4: Top 20 Service Types with Highest Improper Payments: Part A Inpatient Hospital PPS

Appendix C: Improper Payment Rates and Type of Error by Type of Service for Each Claim Type

- Table C1: Top 20 Service Type Improper Payment Rates: Part B
- Table C2: Top 20 Service Type Improper Payment Rates: DMEPOS
- Table C3: Top 20 Service Type Improper Payment Rates: Part A Excluding Inpatient Hospital PPS
- Table C4: Top 20 Service Type Improper Payment Rates: Part A Inpatient Hospital PPS

Appendix D: Projected Improper Payments by Type of Service for Each Type of Error

- Table D1: Top 20 Types of Services with No Documentation Errors
- Table D2: Top 20 Types of Services with Insufficient Documentation Errors
- Table D3: Top 20 Types of Services with Medical Necessity Errors
- Table D4: Top 20 Types of Services with Incorrect Coding Errors
- Table D5: Top 20 Types of Services with Downcoding Errors
- Table D6: Top 20 Types of Services with Other Errors

Appendix E: Projected Improper Payments by Type of Service for Claim Type

- Table E1: Improper Payment Rates by Service Type: Part B
- Table E2: Improper Payment Rates by Service Type: DMEPOS
- Table E3: Improper Payment Rates by Service Type: Part A Excluding Inpatient Hospital PPS
- Table E4: Improper Payment Rates by Service Type: Part A Inpatient Hospital PPS

Appendix F: Projected Improper Payments by Provider Type for Each Claim Type

- Table F1: Improper Payment Rates and Improper Payments by Provider Type: Part B
- Table F2: Improper Payment Rates and Improper Payments by Provider Type: DMEPOS
- Table F3: Improper Payment Rates and Improper Payments by Provider Type: Part A Excluding Inpatient Hospital PPS
- Table F4: Improper Payment Rates and Improper Payments by Provider Type: Part A Inpatient Hospital PPS
- Table F5: Improper Payment Rates and Improper Payments by Provider Type and Length of Stay: Part A Inpatient Hospital PPS

Appendix G: Improper Payment Rates and Type of Error by Provider Type for Each Claim Type

- Table G1: Improper Payment Rates by Provider Type and Type of Error: Part B
- Table G2: Improper Payment Rates by Provider Type and Type of Error: DMEPOS
- Table G3: Improper Payment Rates by Provider Type and Type of Error: Part A Excluding Inpatient Hospital PPS
- Table G4: Improper Payment Rates by Provider Type and Type of Error: Part A Inpatient Hospital PPS

Appendix H: Coding Problems

- Table H1: Problem Code: CPT Code 99233
- Table H2: Problem Code: CPT Code 99214
- Table H3: Problem Code: CPT Code 99232
- Table H4: Impact of One Level E&M (Top 20)
- Table H5: Types of Services with Upcoding Errors: Part B
- Table H6: Types of Services with Upcoding Errors: DMEPOS
- Table H7: Types of Services with Upcoding Errors: Part A Excluding Inpatient Hospital PPS
- Table H8: Types of Services with Upcoding Errors: Part A Inpatient Hospital PPS

Appendix I: Overpayments

- Table I1: Service Specific Overpayment Rates: Part B
- Table I2: Service Specific Overpayment Rates: DMEPOS
- Table I3: Service Specific Overpayment Rates: Part A Excluding Inpatient Hospital PPS
- Table I4: Service Specific Overpayment Rates: Part A Inpatient Hospital PPS
- Table I5: Service Specific Overpayment Rates: All CERT

Appendix J: Underpayments

- Table J1: Service Specific Underpayment Rates: Part B
- Table J2: Service Specific Underpayment Rates: DMEPOS
- Table J3: Service Specific Underpayment Rates: Part A Excluding Inpatient Hospital PPS
- Table J4: Service Specific Underpayment Rates: Part A Inpatient Hospital PPS
- Table J5: Service Specific Underpayment Rates: All Contractors

Appendix K: Statistics and Other Information for the CERT Sample

- Table K1: Claims in Error: Part B
- Table K2: Claims in Error: DMEPOS
- Table K3: Claims in Error: Part A Excluding Inpatient Hospital PPS
- Table K4: Claims in Error: Part A Inpatient Hospital PPS
- Table K5: Included and Excluded in the Sample
- Table K6: Frequency of Claims that are Included and Excluded from Each Improper Payment Rate: Part B
- Table K7: Frequency of Claims that are Included and Excluded from Each Improper Payment Rate: DMEPOS
- Table K8: Frequency of Claims that are Included and Excluded from Each Improper Payment Rate: Part A Including Inpatient Hospital PPS

Appendix A: List of Acronyms

AICD	Automated Implantable Cardioverter-Defibrillator
AK	Above the Knee
ALS	Advance Life Support
AMI	Acute Myocardial Infarction
ASC	Ambulatory Surgery Center
BETOS	Berenson-Eggers Type of Service
BK	Below the Knee
BLS	Basic Life Support
CAH	Critical Access Hospital
CAT/CT	Computer Tomography
CC	Comorbidity or Complication
CERT	Comprehensive Error Rate Testing
CMS	Centers for Medicare & Medicaid Services
CORF	Comprehensive Outpatient Rehabilitation Facility
CPAP	Continuous Positive Airway Pressure
CPM	Continuous Passive Motion
CPT	Current Procedural Terminology
CRNA	Certified Registered Nurse Anesthetist
CVA	Cerebrovascular Accident
DRG	Diagnosis Related Group
DMEPOS	Durable Medical Equipment, Prosthetics, Orthotics & Supplies
E&M	Evaluation and Management
EKG	Electrocardiogram
ESRD	End-Stage Renal Disease
FFS	Fee-for-Service
FQHC	Federally Qualified Health Center
FY	Fiscal Year
GI	Gastrointestinal
HCPCS	Healthcare Common Procedure Coding System
HHA	Home Health Agency
IDTF	Independent Diagnostic Testing Facility
LSO	Lumbar-Sacral Orthosis
MAC	Medicare Administrative Contractor
MCC	Major Complication or Comorbidity
MRA	Magnetic Resonance Angiogram
MRI	Magnetic Resonance Imaging
MS-DRG	Medicare Severity Diagnosis Related Group
MV	Mechanical Ventilation

NDC	National Drug Code
NOS	Not Otherwise Specified
OPPS	Outpatient Prospective Payment System
OPT	Outpatient Physical Therapy
OR	Operating Room
POV	Power Operated Vehicle
PPS	Prospective Payment System
RAD	Respiratory Assist Device
PTCA	Percutaneous Transluminal Coronary Angioplasty
PWC	Power Wheelchair
RHC	Rural Health Clinic
RTP	Return to Provider
SNF	Skilled Nursing Facility
TENS	Transcutaneous Electrical Nerve Stimulation
TOS	Type of Service
W	With
W/O	Without

Appendix B: Projected Improper Payments and Type of Error by Type of Service for Each Claim Type

This series of tables is sorted in descending order by projected improper payments. All estimates in this table are based on a minimum of 30 lines in the sample.

**Table B1: Top 20 Service Types with Highest Improper Payments:
Part B**

Part B Services (BETOS Codes)	Projected Improper Payments	Improper Payment Rate	95% Confidence Interval	Type of Error				
				No Doc	Insufficient Doc	Medical Necessity	Incorrect Coding	Other
All Other Codes	\$2,092,821,992	6.6%	5.5% - 7.8%	2.5%	87.5%	3.5%	4.5%	1.9%
Hospital visit - subsequent	\$1,174,125,211	20.7%	18.9% - 22.5%	4.4%	53.9%	0.1%	41.3%	0.3%
Lab tests - other (non-Medicare fee schedule)	\$1,069,657,944	36.1%	30.6% - 41.6%	0.5%	93.6%	5.7%	0.0%	0.2%
Office visits - established	\$1,042,121,031	7.2%	6.2% - 8.2%	3.0%	30.3%	0.0%	66.7%	0.0%
Hospital visit - initial	\$912,148,529	31.3%	29.1% - 33.5%	1.6%	31.5%	0.0%	66.6%	0.4%
Minor procedures - other (Medicare fee schedule)	\$815,527,799	25.5%	21.8% - 29.2%	0.1%	93.3%	0.5%	1.1%	5.0%
Ambulance	\$716,920,640	12.4%	9.4% - 15.5%	0.0%	81.3%	12.6%	6.1%	0.0%
Office visits - new	\$459,363,024	17.1%	14.4% - 19.9%	0.0%	15.9%	0.0%	79.7%	4.5%
Specialist - psychiatry	\$316,246,868	28.7%	21.7% - 35.6%	0.3%	97.2%	0.1%	1.2%	1.2%
Emergency room visit	\$311,925,707	14.3%	11.7% - 16.9%	0.0%	29.1%	0.0%	69.3%	1.6%
Nursing home visit	\$305,949,346	15.8%	13.0% - 18.6%	1.7%	35.8%	0.3%	61.2%	0.9%
Chiropractic	\$303,816,558	54.1%	48.9% - 59.4%	2.1%	92.2%	4.8%	0.5%	0.3%
Hospital visit - critical care	\$294,609,764	29.2%	23.6% - 34.9%	0.0%	46.9%	0.0%	47.0%	6.1%
Other drugs	\$217,579,139	3.7%	2.4% - 5.0%	0.0%	97.3%	0.4%	2.4%	0.0%
Other tests - other	\$181,609,537	12.6%	8.6% - 16.5%	0.0%	69.8%	0.1%	0.0%	30.1%
Specialist - other	\$167,491,788	24.3%	15.2% - 33.4%	0.0%	91.8%	0.0%	7.2%	1.1%
Lab tests - other (Medicare fee schedule)	\$149,971,711	9.1%	3.8% - 14.4%	0.2%	99.1%	0.0%	0.7%	0.0%
Advanced imaging - CAT/CT/CTA: other	\$136,759,856	13.2%	8.6% - 17.8%	0.0%	93.5%	0.0%	0.0%	6.5%
Minor procedures - musculoskeletal	\$132,870,976	10.2%	6.9% - 13.4%	0.0%	97.9%	0.0%	0.4%	1.8%
Ambulatory procedures - skin	\$132,563,544	6.4%	3.8% - 8.9%	13.3%	74.1%	0.0%	7.5%	5.1%
Echography/ultrasonography-other	\$105,007,616	16.3%	11.8% - 20.9%	0.0%	100.0%	0.0%	0.0%	0.0%
All TOS (Incl. Codes Not Listed)	\$11,039,088,581	12.1%	11.2% - 13.1%	1.7%	68.1%	2.2%	26.1%	1.9%

**Table B2: Top 20 Service Types with Highest Improper Payments:
DMEPOS**

DMEPOS Services (HCPCS)	Projected Improper Payments	Improper Payment Rate	95% Confidence Interval	Type of Error				
				No Doc	Insufficient Doc	Medical Necessity	Incorrect Coding	Other
Oxygen Supplies/Equipment	\$951,886,364	62.1%	58.9% - 65.2%	0.5%	94.3%	2.8%	0.0%	2.4%
Glucose Monitor	\$674,719,970	56.9%	53.2% - 60.5%	0.8%	85.0%	11.4%	1.7%	1.0%
All Other Codes	\$568,632,198	36.6%	31.3% - 41.8%	0.9%	92.9%	1.2%	0.0%	5.0%
CPAP	\$365,695,586	47.3%	40.0% - 54.7%	0.1%	94.1%	3.7%	0.0%	2.1%
Enteral Nutrition	\$240,435,971	62.1%	53.5% - 70.7%	0.5%	98.6%	0.9%	0.0%	0.0%
Nebulizers & Related Drugs	\$237,049,068	42.2%	35.2% - 49.3%	0.2%	96.2%	3.6%	0.0%	0.0%
Infusion Pumps & Related Drugs	\$213,607,407	58.4%	35.7% - 81.2%	0.1%	97.8%	2.0%	0.0%	0.1%
Wheelchairs Motorized	\$206,634,685	74.6%	70.1% - 79.0%	0.3%	94.7%	4.1%	0.0%	0.9%
Lower Limb Orthoses	\$201,478,383	52.8%	41.6% - 63.9%	0.4%	91.4%	1.7%	0.8%	5.9%
Immunosuppressive Drugs	\$185,240,738	44.0%	33.1% - 55.0%	0.3%	88.0%	0.5%	0.1%	11.0%
Wheelchairs Manual	\$169,567,440	84.6%	73.5% - 95.8%	0.0%	94.9%	1.3%	0.0%	3.9%
Lower Limb Prostheses	\$165,794,304	43.6%	37.3% - 49.8%	0.2%	93.3%	1.7%	0.2%	4.5%
Hospital Beds/Accessories	\$134,259,066	82.0%	76.1% - 87.9%	0.3%	96.2%	0.0%	0.0%	3.5%
Wheelchairs Options/Accessories	\$133,302,358	64.7%	55.4% - 73.9%	3.1%	87.7%	1.6%	0.0%	7.7%
Diabetic Shoes	\$129,871,001	67.7%	55.9% - 79.4%	0.0%	94.3%	0.0%	0.0%	5.7%
LSO	\$97,581,919	46.0%	36.6% - 55.4%	3.7%	82.1%	1.9%	0.0%	12.3%
Urological Supplies	\$93,398,254	40.3%	24.5% - 56.1%	0.3%	95.8%	0.1%	0.0%	3.8%
All Policy Groups W Less than 30 Claims	\$88,905,692	58.5%	38.2% - 78.9%	0.0%	88.2%	4.0%	0.0%	7.8%
Surgical Dressings	\$85,412,504	58.5%	45.6% - 71.4%	0.0%	93.0%	6.9%	0.1%	0.1%
RAD	\$78,281,670	57.9%	47.9% - 68.0%	0.0%	93.1%	6.0%	0.0%	0.9%
Parenteral Nutrition	\$72,032,745	52.3%	37.2% - 67.4%	0.0%	88.6%	7.3%	0.0%	4.2%
All TOS (Incl. Codes Not Listed)	\$5,093,787,323	53.1%	51.1% - 55.1%	0.6%	92.4%	3.5%	0.3%	3.2%

**Table B3: Top 20 Service Types with Highest Improper Payments:
Part A Excluding Inpatient Hospital PPS**

Part A Services Excluding Inpatient Hospital PPS (TOB)	Projected Improper Payments	Improper Payment Rate	95% Confidence Interval	Type of Error				
				No Doc	Insufficient Doc	Medical Necessity	Incorrect Coding	Other
Home Health	\$9,395,609,515	51.4%	47.5% - 55.3%	0.4%	90.0%	8.9%	0.1%	0.6%
Hospital Outpatient	\$3,450,750,202	7.7%	4.5% - 10.8%	0.5%	95.8%	1.6%	1.8%	0.2%
SNF Inpatient	\$2,451,703,675	7.0%	5.2% - 8.7%	0.0%	75.2%	3.3%	14.8%	6.7%
Hospital Inpatient (Part A)	\$1,345,286,782	13.8%	9.1% - 18.5%	0.0%	47.5%	50.6%	0.0%	1.9%
Clinic ESRD	\$1,168,927,796	10.7%	8.0% - 13.4%	0.0%	97.4%	2.3%	0.0%	0.3%
Nonhospital based hospice	\$471,100,856	3.8%	1.4% - 6.1%	0.0%	60.6%	27.5%	9.2%	2.6%
CAH	\$252,278,396	5.7%	1.6% - 9.8%	0.0%	92.7%	1.0%	5.8%	0.5%
SNF Inpatient Part B	\$176,703,212	6.8%	2.0% - 11.6%	0.0%	82.1%	3.8%	9.1%	5.1%
Hospital based hospice	\$122,795,268	8.6%	0.8% - 16.5%	0.0%	98.8%	0.0%	1.2%	0.0%
Hospital Other Part B	\$109,259,443	19.7%	8.7% - 30.8%	0.0%	98.5%	0.5%	1.0%	0.0%
Clinic OPT	\$100,522,316	14.7%	0.7% - 28.7%	0.0%	99.4%	0.0%	0.6%	0.0%
Hospital Inpatient Part B	\$58,356,521	12.1%	1.2% - 23.0%	0.0%	64.4%	0.0%	35.6%	0.0%
Clinical Rural Health	\$26,153,649	2.6%	1.2% - 4.0%	15.7%	70.9%	0.0%	0.0%	13.4%
SNF Outpatient	\$19,311,150	6.5%	3.1% - 9.9%	0.0%	48.1%	30.3%	0.0%	21.6%
FQHC	\$14,343,587	1.8%	0.4% - 3.2%	0.0%	100.0%	0.0%	0.0%	0.0%
Clinic CORF	\$10,543,237	24.2%	12.9% - 35.6%	0.0%	71.3%	20.5%	4.1%	4.1%
All Codes W Less Than 30 Claims	\$0	0.0%	0.0% - 0.0%	N/A	N/A	N/A	N/A	N/A
All TOS (Incl. Codes Not Listed)	\$19,173,645,606	13.1%	11.4% - 14.8%	0.3%	85.9%	9.6%	2.8%	1.5%

**Table B4: Top 20 Service Types with Highest Improper Payments:
Part A Inpatient Hospital PPS**

Part A Inpatient Hospital PPS Services (MS-DRGs)	Projected Improper Payments	Improper Payment Rate	95% Confidence Interval	Type of Error				
				No Doc	Insufficient Doc	Medical Necessity	Incorrect Coding	Other
All Other Codes	\$7,849,061,743	10.3%	9.0% - 11.6%	0.0%	2.7%	75.7%	20.3%	1.3%
Heart Failure & Shock (291, 292, 293)	\$541,351,523	15.8%	10.9% - 20.8%	0.0%	0.0%	84.3%	15.1%	0.6%
Perc Cardiovasc Proc W Drug-Eluting Stent (246, 247)	\$432,951,228	21.4%	16.8% - 26.0%	0.0%	0.8%	95.9%	3.3%	0.0%
Permanent Cardiac Pacemaker Implant (242, 243, 244)	\$415,235,447	36.5%	30.9% - 42.1%	0.1%	0.4%	97.4%	0.9%	1.2%
Peripheral Vascular Disorders (299, 300, 301)	\$362,605,125	44.5%	38.9% - 50.0%	0.0%	0.0%	98.1%	1.9%	0.0%
Cardiac Defibrillator Implant W/O Cardiac Cath (226, 227)	\$360,082,879	58.1%	54.8% - 61.4%	0.2%	0.9%	97.9%	1.0%	0.0%
Major Joint Replacement Or Reattachment Of Lower Extremity (469, 470)	\$345,709,650	5.9%	4.3% - 7.5%	0.0%	68.4%	21.2%	10.4%	0.0%
Simple Pneumonia & Pleurisy (193, 194, 195)	\$336,076,813	11.0%	7.4% - 14.6%	0.0%	12.0%	54.7%	33.2%	0.0%
Esophagitis, Gastroent & Misc Digest Disorders (391, 392)	\$323,327,522	25.9%	18.9% - 33.0%	1.5%	0.7%	86.4%	11.5%	0.0%
Chronic Obstructive Pulmonary Disease (190, 191, 192)	\$279,348,091	13.6%	7.6% - 19.5%	0.0%	3.7%	90.9%	5.4%	0.0%
GI Hemorrhage (377, 378, 379)	\$279,322,497	15.6%	11.8% - 19.5%	0.0%	0.0%	84.2%	15.8%	0.0%
Psychoses (885)	\$270,950,909	8.7%	5.1% - 12.4%	0.0%	57.8%	36.2%	2.6%	3.4%
Chest Pain (313)	\$258,124,290	75.2%	66.2% - 84.1%	0.0%	0.0%	99.8%	0.2%	0.0%
Nutritional & Misc Metabolic Disorders (640, 641)	\$243,915,229	24.8%	17.6% - 32.0%	9.1%	0.0%	73.6%	17.3%	0.0%
Renal Failure (682, 683, 684)	\$243,842,229	12.0%	7.1% - 17.0%	0.0%	3.9%	84.0%	12.1%	0.1%
Circulatory Disorders Except AMI, W Card Cath (286, 287)	\$227,070,030	30.1%	24.8% - 35.5%	0.0%	0.0%	95.5%	4.5%	0.0%
Kidney & Urinary Tract Infections (689, 690)	\$225,949,368	17.5%	12.1% - 22.8%	0.0%	0.0%	83.6%	11.2%	5.1%
Other Vascular Procedures (252, 253, 254)	\$204,360,627	12.4%	8.6% - 16.1%	0.0%	2.2%	89.9%	7.8%	0.1%
Spinal Fusion Except Cervical (459, 460)	\$200,530,719	10.3%	7.9% - 12.7%	0.0%	46.6%	37.6%	15.5%	0.2%
Extensive OR procedure Unrelated To Principal Diagnosis (981, 982, 983)	\$194,864,763	14.5%	9.7% - 19.4%	0.0%	14.0%	48.2%	27.9%	9.9%

Part A Inpatient Hospital PPS Services (MS-DRGs)	Projected Improper Payments	Improper Payment Rate	95% Confidence Interval	Type of Error				
				No Doc	Insufficient Doc	Medical Necessity	Incorrect Coding	Other
Cardiac Arrhythmia & Conduction Disorders (308, 309 , 310)	\$190,229,143	12.8%	7.9% - 17.6%	0.0%	1.6%	86.4%	12.0%	0.0%
All TOS (Incl. Codes Not Listed)	\$13,784,909,827	12.2%	11.2% - 13.2%	0.2%	5.8%	77.0%	15.9%	1.1%

Appendix C: Improper Payment Rates and Type of Error by Type of Service for Each Claim Type

Appendix C tables are sorted in descending order by improper payment rate.

**Table C1: Top 20 Service Type Improper Payment Rates:
Part B**

Part B Services (BETOS Codes)	Improper Payment Rate	95% Confidence Interval	Type of Error				
			No Doc	Insufficient Doc	Medical Necessity	Incorrect Coding	Other
Chiropractic	54.1%	48.9% - 59.4%	2.1%	92.2%	4.8%	0.5%	0.3%
Lab tests - other (non-Medicare fee schedule)	36.1%	30.6% - 41.6%	0.5%	93.6%	5.7%	0.0%	0.2%
Hospital visit - initial	31.3%	29.1% - 33.5%	1.6%	31.5%	0.0%	66.6%	0.4%
Hospital visit - critical care	29.2%	23.6% - 34.9%	0.0%	46.9%	0.0%	47.0%	6.1%
Specialist - psychiatry	28.7%	21.7% - 35.6%	0.3%	97.2%	0.1%	1.2%	1.2%
Minor procedures - other (Medicare fee schedule)	25.5%	21.8% - 29.2%	0.1%	93.3%	0.5%	1.1%	5.0%
Specialist - other	24.3%	15.2% - 33.4%	0.0%	91.8%	0.0%	7.2%	1.1%
Hospital visit - subsequent	20.7%	18.9% - 22.5%	4.4%	53.9%	0.1%	41.3%	0.3%
Office visits - new	17.1%	14.4% - 19.9%	0.0%	15.9%	0.0%	79.7%	4.5%
Echography/ultrasonography - other	16.3%	11.8% - 20.9%	0.0%	100.0%	0.0%	0.0%	0.0%
Nursing home visit	15.8%	13.0% - 18.6%	1.7%	35.8%	0.3%	61.2%	0.9%
Emergency room visit	14.3%	11.7% - 16.9%	0.0%	29.1%	0.0%	69.3%	1.6%
Advanced imaging - CAT/CT/CTA: other	13.2%	8.6% - 17.8%	0.0%	93.5%	0.0%	0.0%	6.5%
Other tests - other	12.6%	8.6% - 16.5%	0.0%	69.8%	0.1%	0.0%	30.1%
Ambulance	12.4%	9.4% - 15.5%	0.0%	81.3%	12.6%	6.1%	0.0%
Minor procedures - musculoskeletal	10.2%	6.9% - 13.4%	0.0%	97.9%	0.0%	0.4%	1.8%
Lab tests - other (Medicare fee schedule)	9.1%	3.8% - 14.4%	0.2%	99.1%	0.0%	0.7%	0.0%
Office visits - established	7.2%	6.2% - 8.2%	3.0%	30.3%	0.0%	66.7%	0.0%
All Other Codes	6.6%	5.5% - 7.8%	2.5%	87.5%	3.5%	4.5%	1.9%
Ambulatory procedures - skin	6.4%	3.8% - 8.9%	13.3%	74.1%	0.0%	7.5%	5.1%
Other drugs	3.7%	2.4% - 5.0%	0.0%	97.3%	0.4%	2.4%	0.0%
All Types of Services	12.1%	11.2% - 13.1%	1.7%	68.1%	2.2%	26.1%	1.9%

**Table C2: Top 20 Service Type Improper Payment Rates:
DMEPOS**

DMEPOS (HCPCS)	Improper Payment Rate	95% Confidence Interval	Type of Error				
			No Doc	Insufficient Doc	Medical Necessity	Incorrect Coding	Other
Wheelchairs Manual	84.6%	73.5% - 95.8%	0.0%	94.9%	1.3%	0.0%	3.9%
Hospital Beds/Accessories	82.0%	76.1% - 87.9%	0.3%	96.2%	0.0%	0.0%	3.5%
Wheelchairs Motorized	74.6%	70.1% - 79.0%	0.3%	94.7%	4.1%	0.0%	0.9%
Diabetic Shoes	67.7%	55.9% - 79.4%	0.0%	94.3%	0.0%	0.0%	5.7%
Wheelchairs Options/Accessories	64.7%	55.4% - 73.9%	3.1%	87.7%	1.6%	0.0%	7.7%
Enteral Nutrition	62.1%	53.5% - 70.7%	0.5%	98.6%	0.9%	0.0%	0.0%
Oxygen Supplies/Equipment	62.1%	58.9% - 65.2%	0.5%	94.3%	2.8%	0.0%	2.4%
All Policy Groups W Less than 30 Claims	58.5%	38.2% - 78.9%	0.0%	88.2%	4.0%	0.0%	7.8%
Surgical Dressings	58.5%	45.6% - 71.4%	0.0%	93.0%	6.9%	0.1%	0.1%
Infusion Pumps & Related Drugs	58.4%	35.7% - 81.2%	0.1%	97.8%	2.0%	0.0%	0.1%
Respiratory Assist Device	57.9%	47.9% - 68.0%	0.0%	93.1%	6.0%	0.0%	0.9%
Glucose Monitor	56.9%	53.2% - 60.5%	0.8%	85.0%	11.4%	1.7%	1.0%
Lower Limb Orthoses	52.8%	41.6% - 63.9%	0.4%	91.4%	1.7%	0.8%	5.9%
Parenteral Nutrition	52.3%	37.2% - 67.4%	0.0%	88.6%	7.3%	0.0%	4.2%
CPAP	47.3%	40.0% - 54.7%	0.1%	94.1%	3.7%	0.0%	2.1%
LSO	46.0%	36.6% - 55.4%	3.7%	82.1%	1.9%	0.0%	12.3%
Immunosuppressive Drugs	44.0%	33.1% - 55.0%	0.3%	88.0%	0.5%	0.1%	11.0%
Lower Limb Prostheses	43.6%	37.3% - 49.8%	0.2%	93.3%	1.7%	0.2%	4.5%
Nebulizers & Related Drugs	42.2%	35.2% - 49.3%	0.2%	96.2%	3.6%	0.0%	0.0%
Urological Supplies	40.3%	24.5% - 56.1%	0.3%	95.8%	0.1%	0.0%	3.8%
All Other Codes	36.6%	31.3% - 41.8%	0.9%	92.9%	1.2%	0.0%	5.0%
All Types of Services	53.1%	51.1% - 55.1%	0.6%	92.4%	3.5%	0.3%	3.2%

**Table C3: Top 20 Service Type Improper Payment Rates:
Part A Excluding Inpatient Hospital PPS**

Part A Services Excluding Inpatient Hospital PPS (TOB)	Improper Payment Rate	95% Confidence Interval	Type of Error				
			No Doc	Insufficient Doc	Medical Necessity	Incorrect Coding	Other
Home Health	51.4%	47.5% - 55.3%	0.4%	90.0%	8.9%	0.1%	0.6%
Clinic CORF	24.2%	12.9% - 35.6%	0.0%	71.3%	20.5%	4.1%	4.1%
Hospital Other Part B	19.7%	8.7% - 30.8%	0.0%	98.5%	0.5%	1.0%	0.0%
Clinic OPT	14.7%	0.7% - 28.7%	0.0%	99.4%	0.0%	0.6%	0.0%
Hospital Inpatient (Part A)	13.8%	9.1% - 18.5%	0.0%	47.5%	50.6%	0.0%	1.9%
Hospital Inpatient Part B	12.1%	1.2% - 23.0%	0.0%	64.4%	0.0%	35.6%	0.0%
Clinic ESRD	10.7%	8.0% - 13.4%	0.0%	97.4%	2.3%	0.0%	0.3%
Hospital based hospice	8.6%	0.8% - 16.5%	0.0%	98.8%	0.0%	1.2%	0.0%
Hospital Outpatient	7.7%	4.5% - 10.8%	0.5%	95.8%	1.6%	1.8%	0.2%
SNF Inpatient	7.0%	5.2% - 8.7%	0.0%	75.2%	3.3%	14.8%	6.7%
SNF Inpatient Part B	6.8%	2.0% - 11.6%	0.0%	82.1%	3.8%	9.1%	5.1%
SNF Outpatient	6.5%	3.1% - 9.9%	0.0%	48.1%	30.3%	0.0%	21.6%
CAH	5.7%	1.6% - 9.8%	0.0%	92.7%	1.0%	5.8%	0.5%
Nonhospital based hospice	3.8%	1.4% - 6.1%	0.0%	60.6%	27.5%	9.2%	2.6%
Clinical Rural Health	2.6%	1.2% - 4.0%	15.7%	70.9%	0.0%	0.0%	13.4%
FQHC	1.8%	0.4% - 3.2%	0.0%	100.0%	0.0%	0.0%	0.0%
All Codes W Less Than 30 Claims	0.0%	0.0% - 0.0%	N/A	N/A	N/A	N/A	N/A
All Types of Services	13.1%	11.4% - 14.8%	0.3%	85.9%	9.6%	2.8%	1.5%

**Table C4: Top 20 Service Type Improper Payment Rates:
Part A Inpatient Hospital PPS**

Part A Inpatient Hospital PPS Services (MS-DRGs)	Improper Payment Rate	95% Confidence Interval	Type of Error				
			No Doc	Insufficient Doc	Medical Necessity	Incorrect Coding	Other
Chest Pain (313)	75.2%	66.2% - 84.1%	0.0%	0.0%	99.8%	0.2%	0.0%
Cardiac Defibrillator Implant W/O Cardiac Cath (226 , 227)	58.1%	54.8% - 61.4%	0.2%	0.9%	97.9%	1.0%	0.0%
Peripheral Vascular Disorders (299 , 300 , 301)	44.5%	38.9% - 50.0%	0.0%	0.0%	98.1%	1.9%	0.0%
Permanent Cardiac Pacemaker Implant (242 , 243 , 244)	36.5%	30.9% - 42.1%	0.1%	0.4%	97.4%	0.9%	1.2%
Circulatory Disorders Except AMI, W Card Cath (286 , 287)	30.1%	24.8% - 35.5%	0.0%	0.0%	95.5%	4.5%	0.0%
Esophagitis, Gastroent & Misc Digest Disorders (391 , 392)	25.9%	18.9% - 33.0%	1.5%	0.7%	86.4%	11.5%	0.0%
Nutritional & Misc Metabolic Disorders (640, 641)	24.8%	17.6% - 32.0%	9.1%	0.0%	73.6%	17.3%	0.0%
Perc Cardiovasc Proc W Drug-Eluting Stent (246, 247)	21.4%	16.8% - 26.0%	0.0%	0.8%	95.9%	3.3%	0.0%
Kidney & Urinary Tract Infections (689 , 690)	17.5%	12.1% - 22.8%	0.0%	0.0%	83.6%	11.2%	5.1%
Heart Failure & Shock (291 , 292 , 293)	15.8%	10.9% - 20.8%	0.0%	0.0%	84.3%	15.1%	0.6%
GI Hemorrhage (377, 378, 379)	15.6%	11.8% - 19.5%	0.0%	0.0%	84.2%	15.8%	0.0%
Extensive OR Procedure Unrelated To Principal Diagnosis (981 , 982 , 983)	14.5%	9.7% - 19.4%	0.0%	14.0%	48.2%	27.9%	9.9%
Chronic Obstructive Pulmonary Disease (190 , 191 , 192)	13.6%	7.6% - 19.5%	0.0%	3.7%	90.9%	5.4%	0.0%
Cardiac Arrhythmia & Conduction Disorders (308, 309 , 310)	12.8%	7.9% - 17.6%	0.0%	1.6%	86.4%	12.0%	0.0%
Other Vascular Procedures (252 , 253 , 254)	12.4%	8.6% - 16.1%	0.0%	2.2%	89.9%	7.8%	0.1%
Renal Failure (682 , 683, 684)	12.0%	7.1% - 17.0%	0.0%	3.9%	84.0%	12.1%	0.1%
Simple Pneumonia & Pleurisy (193 , 194 , 195)	11.0%	7.4% - 14.6%	0.0%	12.0%	54.7%	33.2%	0.0%
All Other Codes	10.3%	9.0% - 11.6%	0.0%	2.7%	75.7%	20.3%	1.3%
Spinal Fusion Except Cervical (459 , 460)	10.3%	7.9% - 12.7%	0.0%	46.6%	37.6%	15.5%	0.2%
Psychoses (885)	8.7%	5.1% - 12.4%	0.0%	57.8%	36.2%	2.6%	3.4%

Major Joint Replacement Or Reattachment Of Lower Extremity (469 , 470)	5.9%	4.3% - 7.5%	0.0%	68.4%	21.2%	10.4%	0.0%
All Types of Services	12.2%	11.2% - 13.2%	0.2%	5.8%	77.0%	15.9%	1.1%

Appendix D: Projected Improper Payments by Type of Service for Each Type of Error

Appendix D tables are sorted in descending order by projected improper payments.

Table D1: Top 20 Types of Services with No Documentation Errors

All Services	No Documentation Errors		
	Improper Payment Rate	Projected Improper Payments	95% Confidence Interval
Hospital visit - subsequent	0.9%	\$51,704,324	0.3% - 1.6%
Home Health	0.2%	\$33,577,019	(0.1%) - 0.5%
Office visits - established	0.2%	\$31,119,028	(0.0%) - 0.5%
Nutritional & Misc Metabolic Disorders (640 , 641)	2.3%	\$22,282,564	1.8% - 2.7%
Hospital Outpatient	0.0%	\$18,662,161	(0.0%) - 0.1%
Ambulatory procedures - skin	0.8%	\$17,636,923	(0.8%) - 2.5%
Home visit	6.2%	\$15,815,623	2.2% - 10.3%
Hospital visit - initial	0.5%	\$14,821,961	0.1% - 0.9%
Dialysis services (Medicare Fee Schedule)	1.5%	\$11,433,496	(0.4%) - 3.4%
Other tests - electrocardiograms	2.6%	\$8,345,048	1.2% - 3.9%
Chiropractic	1.1%	\$6,441,716	(0.2%) - 2.5%
Glucose Monitor	0.5%	\$5,660,084	(0.1%) - 1.1%
Major procedure - Other	0.2%	\$5,596,696	0.2% - 0.2%
Nursing home visit	0.3%	\$5,348,689	(0.0%) - 0.6%
Lab tests - other (non-Medicare fee schedule)	0.2%	\$5,041,688	(0.0%) - 0.4%
Esophagitis, Gastroent & Misc Digest Disorders (391, 392)	0.4%	\$4,690,878	(0.4%) - 1.1%
Oxygen Supplies/Equipment	0.3%	\$4,580,443	(0.0%) - 0.6%
Wheelchairs Options/Accessories	2.0%	\$4,111,847	1.5% - 2.5%
Clinical Rural Health	0.4%	\$4,095,362	(0.2%) - 1.1%
LSO	1.7%	\$3,648,297	(0.6%) - 4.1%
All Other Codes	0.0%	\$26,207,935	0.0% - 0.0%
Overall	0.1%	\$300,821,784	0.1% - 0.1%

Table D2: Top 20 Types of Services with Insufficient Documentation Errors

All Services	Insufficient Documentation Errors		
	Improper Payment Rate	Projected Improper Payments	95% Confidence Interval
Home Health	46.3%	\$8,457,512,641	42.3% - 50.2%
Hospital Outpatient	7.3%	\$3,305,285,183	4.2% - 10.5%
SNF Inpatient	5.2%	\$1,844,226,232	3.6% - 6.8%
Clinic ESRD	10.4%	\$1,138,589,072	7.7% - 13.1%
Lab tests - other (non-Medicare fee schedule)	33.8%	\$1,001,069,244	28.6% - 38.9%
Oxygen Supplies/Equipment	58.5%	\$897,402,654	55.3% - 61.7%
Minor procedures - other (Medicare fee schedule)	23.8%	\$761,170,506	20.3% - 27.3%
Hospital Inpatient (Part A)	6.6%	\$638,414,585	4.2% - 8.9%
Hospital visit - subsequent	11.2%	\$633,004,222	9.6% - 12.7%
Ambulance	10.1%	\$582,984,004	7.2% - 13.0%
Glucose Monitor	48.3%	\$573,785,692	44.6% - 52.1%
CPAP	44.5%	\$344,090,083	37.4% - 51.7%
Office visits - established	2.2%	\$315,389,642	1.5% - 2.9%
Specialist - psychiatry	27.9%	\$307,493,947	20.8% - 34.9%
Hospital visit - initial	9.8%	\$286,878,096	7.9% - 11.8%
Nonhospital based hospice	2.3%	\$285,522,161	0.5% - 4.1%
Chiropractic	49.9%	\$280,222,114	44.6% - 55.2%
Enteral Nutrition	61.2%	\$237,043,821	52.6% - 69.9%
Major Joint Replacement Or Reattachment Of Lower Extremity (469 , 470)	4.0%	\$236,312,683	2.6% - 5.4%
CAH	5.3%	\$233,985,048	1.1% - 9.4%
All Other Codes	4.0%	\$7,130,596,895	3.7% - 4.4%
Overall	8.2%	\$29,490,978,524	7.5% - 8.9%

Table D3: Top 20 Types of Services with Medical Necessity Errors

All Services	Medical Necessity Errors		
	Improper Payment Rate	Projected Improper Payments	95% Confidence Interval
Home Health	4.6%	\$838,796,579	3.3% - 5.9%
Hospital Inpatient (Part A)	7.0%	\$680,999,324	2.6% - 11.4%
Heart Failure & Shock (291 , 292 , 293)	13.4%	\$456,458,920	8.5% - 18.2%
Perc Cardiovasc Proc W Drug-Eluting Stent (246 , 247)	20.5%	\$415,037,002	15.9% - 25.1%
Permanent Cardiac Pacemaker Implant (242 , 243 , 244)	35.6%	\$404,630,156	30.1% - 41.0%
Peripheral Vascular Disorders (299 , 300 , 301)	43.6%	\$355,865,831	38.2% - 49.1%
Cardiac Defibrillator Implant W/O Cardiac Cath (226, 227)	56.9%	\$352,422,137	53.6% - 60.2%
Esophagitis, Gastroent & Misc Digest Disorders (391, 392)	22.4%	\$279,457,957	15.6% - 29.2%
Chest Pain (313)	75.0%	\$257,700,738	66.1% - 84.0%
Chronic Obstructive Pulmonary Disease (190 , 191 , 192)	12.4%	\$254,013,968	6.4% - 18.3%
GI Hemorrhage (377 , 378 , 379)	13.2%	\$235,099,157	9.9% - 16.4%
Circulatory Disorders Except AMI, W Card Cath (286, 287)	28.8%	\$216,875,554	23.5% - 34.1%
Renal Failure (682 , 683 , 684)	10.1%	\$204,749,203	5.2% - 15.0%
Kidney & Urinary Tract Infections (689 , 690)	14.6%	\$188,987,322	9.5% - 19.7%
Simple Pneumonia & Pleurisy (193 , 194 , 195)	6.0%	\$183,980,702	3.2% - 8.8%
Other Vascular Procedures (252 , 253 , 254)	11.1%	\$183,813,475	7.4% - 14.9%
Nutritional & Misc Metabolic Disorders (640 , 641)	18.3%	\$179,518,415	11.1% - 25.4%
Syncope & Collapse (312)	33.4%	\$179,036,145	22.2% - 44.7%
Transient Ischemia (069)	39.4%	\$164,935,261	27.3% - 51.6%
Cardiac Arrhythmia & Conduction Disorders (308 , 309, 310)	11.0%	\$164,369,860	6.3% - 15.8%
All Other Codes	2.2%	\$6,676,493,129	1.8% - 2.5%
Overall	3.6%	\$12,873,240,834	3.1% - 4.0%

Table D4: Top 20 Types of Services with Incorrect Coding Errors

All Services	Incorrect Coding Errors		
	Improper Payment Rate	Projected Improper Payments	95% Confidence Interval
Office visits - established	4.8%	\$695,612,362	4.1% - 5.5%
Hospital visit - initial	20.8%	\$607,210,694	19.1% - 22.5%
Hospital visit - subsequent	8.6%	\$484,801,534	7.7% - 9.4%
Office visits - new	13.6%	\$365,915,193	11.6% - 15.7%
SNF Inpatient	1.0%	\$363,114,008	0.7% - 1.4%
Emergency room visit	9.9%	\$216,058,135	8.1% - 11.7%
Nursing home visit	9.7%	\$187,230,792	7.9% - 11.4%
Hospital visit - critical care	13.7%	\$138,376,437	10.5% - 17.0%
Simple Pneumonia & Pleurisy (193 , 194 , 195)	3.7%	\$111,667,275	1.8% - 5.5%
Heart Failure & Shock (291 , 292 , 293)	2.4%	\$81,873,578	1.2% - 3.6%
Septicemia Or Severe Sepsis W/O MV 96+ Hours (871, 872)	1.3%	\$76,554,384	0.5% - 2.1%
Coronary Bypass W/O Cardiac Cath (235 , 236)	4.8%	\$63,902,560	4.0% - 5.6%
Hospital Outpatient	0.1%	\$63,565,065	(0.0%) - 0.3%
Extensive OR Procedure Unrelated To Principal Diagnosis (981 , 982 , 983)	4.1%	\$54,434,985	1.3% - 6.8%
Complications Of Treatment (919 , 920 , 921)	13.2%	\$49,327,732	10.9% - 15.5%
Craniotomy & Endovascular Intracranial Procedures (025 , 026 , 027)	5.7%	\$45,587,719	5.4% - 6.0%
GI Hemorrhage (377 , 378 , 379)	2.5%	\$44,223,340	0.1% - 4.8%
Ambulance	0.8%	\$43,530,485	0.3% - 1.2%
Nonhospital based hospice	0.3%	\$43,406,073	(0.3%) - 1.0%
Nutritional & Misc Metabolic Disorders (640 , 641)	4.3%	\$42,114,250	1.8% - 6.7%
All Other Codes	0.9%	\$1,830,393,808	0.7% - 1.0%
Overall	1.6%	\$5,608,900,412	1.4% - 1.7%

Table D5: Top 20 Types of Services with Downcoding¹ Errors

All Services	Downcoding Errors		
	Improper Payment Rate	Projected Improper Payments	95% Confidence Interval
Office visits - established	0.8%	\$120,554,974	0.5% - 1.2%
Simple Pneumonia & Pleurisy (193 , 194 , 195)	2.3%	\$69,157,731	0.8% - 3.8%
Heart Failure & Shock (291 , 292 , 293)	1.6%	\$56,073,677	0.6% - 2.6%
Complications Of Treatment (919 , 920 , 921)	13.0%	\$48,759,559	10.8% - 15.3%
Septicemia Or Severe Sepsis W/O MV 96+ Hours (871 , 872)	0.8%	\$48,275,933	0.1% - 1.6%
Craniotomy & Endovascular Intracranial Procedures (025, 026 , 027)	5.7%	\$45,587,719	5.4% - 6.0%
Coronary Bypass W/O Cardiac Cath (235, 236)	3.2%	\$42,268,427	2.6% - 3.8%
GI Obstruction (388 , 389 , 390)	4.2%	\$32,363,377	1.1% - 7.2%
Nutritional & Misc Metabolic Disorders (640, 641)	3.3%	\$32,158,717	1.0% - 5.5%
SNF Inpatient	0.1%	\$30,028,312	(0.0%) - 0.2%
GI Hemorrhage (377 , 378 , 379)	1.7%	\$29,483,778	(0.6%) - 3.9%
Cardiac Valve & Oth Maj Cardiothoracic Proc W/O Card Cath (219 , 220 , 221)	1.8%	\$29,213,907	1.6% - 2.0%
Major Small & Large Bowel Procedures (329 , 330 , 331)	1.0%	\$27,636,598	(0.3%) - 2.3%
Respiratory Infections & Inflammations (177 , 178 , 179)	1.3%	\$24,752,365	1.0% - 1.6%
Hernia Procedures Except Inguinal & Femoral (353 , 354, 355)	11.8%	\$24,484,573	11.1% - 12.4%
Esophagitis, Gastroent & Misc Digest Disorders (391 , 392)	1.9%	\$23,388,911	0.7% - 3.0%
Hospital visit - subsequent	0.3%	\$18,577,643	0.2% - 0.5%
Seizures (100 , 101)	3.0%	\$17,693,542	1.1% - 4.9%
Major Cardiovasc Procedures (237 , 238)	1.9%	\$17,692,254	1.6% - 2.3%
Acute Myocardial Infarction, Discharged Alive (280, 281, 282)	1.3%	\$16,240,126	0.9% - 1.7%
All Other Codes	0.3%	\$732,548,845	0.2% - 0.4%
Overall	0.4%	\$1,486,940,969	0.3% - 0.5%

¹ Downcoding refers to billing a lower level service or a service with a lower payment than is supported by the medical record documentation.

Table D6: Top 20 Types of Services with Other Errors

All Services	Other Errors		
	Improper Payment Rate	Projected Improper Payments	95% Confidence Interval
SNF Inpatient	0.5%	\$163,857,016	0.0% - 0.9%
Home Health	0.3%	\$58,177,367	(0.1%) - 0.7%
Other tests - other	3.8%	\$54,706,955	2.0% - 5.6%
Minor procedures - other (Medicare fee schedule)	1.3%	\$40,781,785	(0.1%) - 2.6%
Other Digestive System Diagnoses (393 , 394 , 395)	3.9%	\$30,262,834	3.2% - 4.7%
Minor procedures - skin	2.4%	\$29,548,134	(0.6%) - 5.5%
Hospital Inpatient (Part A)	0.3%	\$25,872,873	(0.1%) - 0.6%
Oxygen Supplies/Equipment	1.5%	\$22,861,022	0.7% - 2.2%
Office visits - new	0.8%	\$20,515,247	(0.2%) - 1.8%
Immunosuppressive Drugs	4.8%	\$20,371,919	1.2% - 8.5%
Extensive OR Procedure Unrelated To Principal Diagnosis (981 , 982 , 983)	1.4%	\$19,241,957	(0.8%) - 3.7%
Hospital visit - critical care	1.8%	\$18,106,309	(0.6%) - 4.2%
Wnd Debrid & Skn Grft Exc Hand, For Musculo-Conn Tiss Dis (463 , 464 , 465)	2.9%	\$13,379,125	2.7% - 3.0%
Nonhospital based hospice	0.1%	\$12,430,609	(0.1%) - 0.3%
LSO	5.6%	\$11,972,426	0.7% - 10.6%
Lower Limb Orthoses	3.1%	\$11,803,402	(0.4%) - 6.6%
Kidney & Urinary Tract Infections (689 , 690)	0.9%	\$11,597,592	(0.9%) - 2.6%
Wheelchairs Options/Accessories	5.0%	\$10,265,119	3.0% - 7.0%
Negative Pressure Wound Therapy	5.8%	\$9,684,170	(0.4%) - 12.0%
Other Skin, Subcut Tiss & Breast Proc (579 , 580 , 581)	2.0%	\$9,494,075	1.2% - 2.8%
All Other Codes	0.1%	\$222,559,847	0.1% - 0.1%
Overall	0.2%	\$817,489,783	0.2% - 0.3%

Appendix E: Projected Improper Payments by Type of Service for Each Claim Type

This series of tables is sorted in descending order by projected improper payments. All estimates in this table are based on a minimum of 30 lines in the sample.

**Table E1: Improper Payment Rates by Service Type:
Part B**

Part B Services (BETOS Codes)	Improper Payment Rate				
	Improper Payment Rate	Number of Line Items (Sample)	Projected Improper Payments	Standard Error	95% Confidence Interval
Hospital visit - subsequent	20.7%	1,815	\$1,174,125,211	0.9%	18.9% - 22.5%
Lab tests - other (non-Medicare fee schedule)	36.1%	2,748	\$1,069,657,944	2.8%	30.6% - 41.6%
Office visits - established	7.2%	2,061	\$1,042,121,031	0.5%	6.2% - 8.2%
Hospital visit - initial	31.3%	1,009	\$912,148,529	1.1%	29.1% - 33.5%
Minor procedures - other (Medicare fee schedule)	25.5%	1,299	\$815,527,799	1.9%	21.8% - 29.2%
Ambulance	12.4%	562	\$716,920,640	1.5%	9.4% - 15.5%
Office visits - new	17.1%	570	\$459,363,024	1.4%	14.4% - 19.9%
Specialist - psychiatry	28.7%	715	\$316,246,868	3.6%	21.7% - 35.6%
Emergency room visit	14.3%	380	\$311,925,707	1.3%	11.7% - 16.9%
Nursing home visit	15.8%	461	\$305,949,346	1.4%	13.0% - 18.6%
Chiropractic	54.1%	704	\$303,816,558	2.7%	48.9% - 59.4%
Hospital visit - critical care	29.2%	320	\$294,609,764	2.9%	23.6% - 34.9%
Other drugs	3.7%	744	\$217,579,139	0.7%	2.4% - 5.0%
Other tests - other	12.6%	572	\$181,609,537	2.0%	8.6% - 16.5%
Specialist - other	24.3%	949	\$167,491,788	4.6%	15.2% - 33.4%
All Codes W Less Than 30 Claims	6.9%	235	\$156,415,944	2.3%	2.3% - 11.4%
Lab tests - other (Medicare fee schedule)	9.1%	242	\$149,971,711	2.7%	3.8% - 14.4%
Advanced imaging - CAT/CT/CTA: other	13.2%	395	\$136,759,856	2.4%	8.6% - 17.8%
Minor procedures - musculoskeletal	10.2%	301	\$132,870,976	1.7%	6.9% - 13.4%
Ambulatory procedures - skin	6.4%	238	\$132,563,544	1.3%	3.8% - 8.9%
Echography/ultrasonography - other	16.3%	137	\$105,007,616	2.3%	11.8% - 20.9%
Dialysis services (Medicare Fee Schedule)	12.9%	141	\$98,062,362	2.5%	8.1% - 17.8%
Lab tests - automated general profiles	25.4%	732	\$93,281,793	2.0%	21.5% - 29.3%

Part B Services (BETOS Codes)	Improper Payment Rate				
	Improper Payment Rate	Number of Line Items (Sample)	Projected Improper Payments	Standard Error	95% Confidence Interval
Specialist - ophthalmology	3.5%	437	\$91,038,970	1.0%	1.5% - 5.5%
Minor procedures - skin	7.4%	252	\$89,366,708	1.9%	3.6% - 11.1%
Lab tests - blood counts	28.4%	577	\$86,732,770	2.7%	23.1% - 33.6%
Anesthesia	3.5%	242	\$78,674,137	1.3%	1.0% - 6.1%
Eye procedure - cataract removal/lens insertion	4.1%	153	\$78,100,690	1.9%	0.4% - 7.8%
Standard imaging - nuclear medicine	9.0%	197	\$77,488,023	2.8%	3.5% - 14.6%
Advanced imaging - MRI/MRA: other	6.5%	189	\$73,532,906	2.8%	1.0% - 12.0%
Echography/ultrasonography - abdomen/pelvis	19.8%	108	\$73,275,439	2.5%	14.8% - 24.7%
Standard imaging - musculoskeletal	11.2%	322	\$71,817,587	1.4%	8.4% - 14.0%
Echography/ultrasonography - heart	8.8%	226	\$70,693,065	1.6%	5.7% - 12.0%
Other tests - electrocardiograms	21.4%	447	\$69,502,376	2.7%	16.0% - 26.7%
Endoscopy - colonoscopy	7.5%	177	\$65,754,848	3.3%	1.0% - 13.9%
Oncology - radiation therapy	6.3%	156	\$63,836,779	1.1%	4.3% - 8.4%
Ambulatory procedures - other	7.9%	242	\$63,130,005	2.6%	2.8% - 12.9%
Standard imaging - chest	14.6%	283	\$53,418,209	2.2%	10.2% - 19.0%
Home visit	20.8%	39	\$52,970,972	3.5%	13.9% - 27.7%
Advanced imaging - CAT/CT/CTA: brain/head/neck	12.4%	105	\$47,548,584	2.7%	7.2% - 17.7%
Advanced imaging - MRI/MRA: brain/head/neck	16.6%	66	\$47,490,648	3.9%	9.0% - 24.3%
Echography/ultrasonography - carotid arteries	22.0%	82	\$46,354,387	4.2%	13.9% - 30.2%
Other - non-Medicare fee schedule	75.5%	91	\$36,661,354	5.5%	64.7% - 86.2%
Standard imaging - other	13.4%	80	\$35,348,665	6.2%	1.2% - 25.6%
Other - Medicare fee schedule	16.2%	363	\$32,097,202	6.1%	4.3% - 28.0%
Other tests - EKG monitoring	16.3%	42	\$30,299,109	4.3%	7.9% - 24.8%
Lab tests - routine venipuncture (non-Medicare fee schedule)	18.4%	787	\$27,215,006	2.0%	14.4% - 22.3%
Major procedure, cardiovascular-Other	2.2%	285	\$25,793,533	0.6%	1.0% - 3.5%
Imaging/procedure - other	6.6%	310	\$21,951,881	2.1%	2.4% - 10.8%
Lab tests - urinalysis	31.5%	403	\$21,679,716	2.4%	26.9% - 36.1%
Major procedure, orthopedic - Knee replacement	5.7%	110	\$21,023,704	1.4%	2.9% - 8.4%
Chemotherapy	1.6%	112	\$20,918,136	0.8%	0.1% - 3.2%
Eye procedure - other	2.9%	231	\$20,808,545	0.7%	1.5% - 4.3%
Lab tests - bacterial cultures	23.1%	101	\$20,686,338	4.1%	15.0% - 31.2%
Endoscopy - cystoscopy	6.8%	69	\$18,729,570	1.4%	4.1% - 9.5%

Part B Services (BETOS Codes)	Improper Payment Rate				
	Improper Payment Rate	Number of Line Items (Sample)	Projected Improper Payments	Standard Error	95% Confidence Interval
Major procedure - Other	0.7%	275	\$18,399,799	0.1%	0.5% - 0.8%
Standard imaging - breast	4.2%	115	\$17,333,319	1.3%	1.7% - 6.7%
Other tests - cardiovascular stress tests	12.9%	81	\$15,557,569	2.4%	8.2% - 17.7%
Major procedure, orthopedic - other	1.5%	78	\$13,273,499	0.4%	0.7% - 2.4%
Oncology - other	3.8%	169	\$12,798,373	1.2%	1.5% - 6.2%
Endoscopy - upper gastrointestinal	2.9%	89	\$12,461,313	0.5%	1.8% - 3.9%
Major procedure, orthopedic - Hip replacement	3.2%	61	\$8,692,925	1.0%	1.1% - 5.2%
Major procedure, cardiovascular-Pacemaker insertion	3.2%	114	\$6,968,270	0.3%	2.6% - 3.8%
Lab tests - glucose	14.7%	74	\$2,766,817	2.3%	10.2% - 19.2%
Major procedure, cardiovascular- PTCA	1.0%	54	\$1,869,611	1.0%	(1.0%) - 3.0%
Ambulatory procedures - musculoskeletal	0.3%	108	\$999,072	0.1%	0.2% - 0.4%
Immunizations/Vaccinations	0.0%	227	\$1,464	0.0%	0.0% - 0.0%
Undefined codes	N/A	658	N/A	N/A	N/A
All TOS (Incl. Codes Not Listed)	12.1%	17,454	\$11,039,088,581	0.5%	11.2% - 13.1%

**Table E2: Improper Payment Rates by Service Type:
DMEPOS**

DMEPOS (HCPCS)	Improper Payment Rate				
	Improper Payment Rate	Number of Line Items (Sample)	Projected Improper Payments	Standard Error	95% Confidence Interval
Oxygen Supplies/Equipment	62.1%	1,391	\$951,886,364	1.6%	58.9% - 65.2%
Glucose Monitor	56.9%	1,221	\$674,719,970	1.9%	53.2% - 60.5%
CPAP	47.3%	589	\$365,695,586	3.7%	40.0% - 54.7%
Enteral Nutrition	62.1%	292	\$240,435,971	4.4%	53.5% - 70.7%
Nebulizers & Related Drugs	42.2%	664	\$237,049,068	3.6%	35.2% - 49.3%
Infusion Pumps & Related Drugs	58.4%	206	\$213,607,407	11.6%	35.7% - 81.2%
Wheelchairs Motorized	74.6%	1,131	\$206,634,685	2.3%	70.1% - 79.0%
Lower Limb Orthoses	52.8%	255	\$201,478,383	5.7%	41.6% - 63.9%
Immunosuppressive Drugs	44.0%	246	\$185,240,738	5.6%	33.1% - 55.0%
Wheelchairs Manual	84.6%	277	\$169,567,440	5.7%	73.5% - 95.8%
Lower Limb Prostheses	43.6%	1,317	\$165,794,304	3.2%	37.3% - 49.8%
Hospital Beds/Accessories	82.0%	326	\$134,259,066	3.0%	76.1% - 87.9%
Wheelchairs Options/Accessories	64.7%	895	\$133,302,358	4.7%	55.4% - 73.9%
Diabetic Shoes	67.7%	164	\$129,871,001	6.0%	55.9% - 79.4%
LSO	46.0%	123	\$97,581,919	4.8%	36.6% - 55.4%
Urological Supplies	40.3%	187	\$93,398,254	8.1%	24.5% - 56.1%
All Policy Groups W Less than 30 Claims	58.5%	243	\$88,905,692	10.4%	38.2% - 78.9%
Surgical Dressings	58.5%	183	\$85,412,504	6.6%	45.6% - 71.4%
Respiratory Assist Device	57.9%	104	\$78,281,670	5.1%	47.9% - 68.0%
Parenteral Nutrition	52.3%	133	\$72,032,745	7.7%	37.2% - 67.4%
Ostomy Supplies	37.1%	207	\$69,718,296	4.8%	27.7% - 46.5%
Oral Anti-Cancer Drugs	19.9%	45	\$59,718,551	7.2%	5.7% - 34.1%
Negative Pressure Wound Therapy	27.2%	66	\$45,789,177	5.9%	15.6% - 38.9%
TENS	97.6%	108	\$45,690,762	1.2%	95.3% - 99.9%
Support Surfaces	64.4%	599	\$37,998,161	5.7%	53.2% - 75.5%
Walkers	57.4%	75	\$37,728,096	7.1%	43.5% - 71.3%
Ventilators	28.4%	63	\$37,137,719	10.7%	7.4% - 49.3%
Commodos/Bed Pans/Urinals	94.7%	83	\$29,557,503	2.8%	89.3% -100.2%
Osteogenesis Stimulator	24.7%	98	\$27,014,700	2.5%	19.8% - 29.6%

DMEPOS (HCPCS)	Improper Payment Rate				
	Improper Payment Rate	Number of Line Items (Sample)	Projected Improper Payments	Standard Error	95% Confidence Interval
Misc DMEPOS	97.9%	32	\$25,511,985	1.1%	95.8% - 100.0%
Breast Prostheses	41.3%	47	\$21,356,428	7.2%	27.2% - 55.5%
Patient Lift	87.6%	60	\$18,658,784	4.8%	78.1% - 97.0%
Upper Limb Orthoses	33.9%	88	\$18,657,919	7.8%	18.6% - 49.2%
Lenses	38.7%	80	\$18,328,320	6.8%	25.5% - 52.0%
Wheelchairs Seating	53.8%	347	\$17,583,229	10.1%	33.9% - 73.7%
Impotence Aid	43.0%	50	\$13,479,500	7.1%	29.0% - 56.9%
Suction Pump	54.8%	88	\$10,883,537	8.6%	37.9% - 71.7%
CPM Device	48.3%	31	\$8,702,750	10.9%	27.0% - 69.7%
Repairs/DMEPOS	74.3%	115	\$8,676,570	4.4%	65.7% - 83.0%
Orthopedic Footwear	93.9%	32	\$8,482,484	6.2%	81.7% -106.2%
Automatic External Defibrillator	2.9%	30	\$3,167,210	1.8%	(0.7%) - 6.4%
POV	65.1%	82	\$3,069,508	10.1%	45.3% - 84.8%
Speech Generating Devices	10.4%	71	\$1,721,008	3.5%	3.5% - 17.2%
Routinely Denied Items	N/A	99	N/A	N/A	N/A
All TOS (Incl. Codes Not Listed)	53.1%	10,979	\$5,093,787,323	1.0%	51.1% - 55.1%

**Table E3: Improper Payment Rates by Service Type:
Part A Excluding Inpatient Hospital PPS**

Part A Services Excluding Inpatient Hospital PPS (TOB)	Improper Payment Rate				
	Improper Payment Rate	Number of Line Items (Sample)	Projected Improper Payments	Standard Error	95% Confidence Interval
Home Health	51.4%	1,308	\$9,395,609,515	2.0%	47.5% - 55.3%
Hospital Outpatient	7.7%	1,872	\$3,450,750,202	1.6%	4.5% - 10.8%
SNF Inpatient	7.0%	1,367	\$2,451,703,675	0.9%	5.2% - 8.7%
Hospital Inpatient (Part A)	13.8%	608	\$1,345,286,782	2.4%	9.1% - 18.5%
Clinic ESRD	10.7%	525	\$1,168,927,796	1.4%	8.0% - 13.4%
Nonhospital based hospice	3.8%	360	\$471,100,856	1.2%	1.4% - 6.1%
CAH	5.7%	292	\$252,278,396	2.1%	1.6% - 9.8%
SNF Inpatient Part B	6.8%	132	\$176,703,212	2.5%	2.0% - 11.6%
Hospital based hospice	8.6%	63	\$122,795,268	4.0%	0.8% - 16.5%
Hospital Other Part B	19.7%	144	\$109,259,443	5.6%	8.7% - 30.8%
Clinic OPT	14.7%	102	\$100,522,316	7.1%	0.7% - 28.7%
Hospital Inpatient Part B	12.1%	74	\$58,356,521	5.6%	1.2% - 23.0%
Clinical Rural Health	2.6%	426	\$26,153,649	0.7%	1.2% - 4.0%
SNF Outpatient	6.5%	105	\$19,311,150	1.7%	3.1% - 9.9%
FQHC	1.8%	261	\$14,343,587	0.7%	0.4% - 3.2%
Clinic CORF	24.2%	79	\$10,543,237	5.8%	12.9% - 35.6%
All Codes W Less Than 30 Claims	0.0%	34	N/A	N/A	N/A
All TOS (Incl. Codes Not Listed)	13.1%	7,752	\$19,173,645,606	0.9%	11.4% - 14.8%

**Table E4: Improper Payment Rates by Service Type:
Part A Inpatient Hospital PPS**

Part A Inpatient Hospital PPS Services (MS-DRGs)	Improper Payment Rate				
	Improper Payment Rate	Number of Line Items (Sample)	Projected Improper Payments	Standard Error	95% Confidence Interval
All Codes W Less Than 30 Claims	13.1%	805	\$2,939,999,190	1.8%	9.6% - 16.7%
Heart Failure & Shock (291 , 292 , 293)	15.8%	242	\$541,351,523	2.5%	10.9% - 20.8%
Perc Cardiovasc Proc W Drug-Eluting Stent (246, 247)	21.4%	285	\$432,951,228	2.3%	16.8% - 26.0%
Permanent Cardiac Pacemaker Implant (242 , 243, 244)	36.5%	1,017	\$415,235,447	2.8%	30.9% - 42.1%
Peripheral Vascular Disorders (299 , 300 , 301)	44.5%	73	\$362,605,125	2.8%	38.9% - 50.0%
Cardiac Defibrillator Implant W/O Cardiac Cath (226 , 227)	58.1%	793	\$360,082,879	1.7%	54.8% - 61.4%
Major Joint Replacement Or Reattachment Of Lower Extremity (469 , 470)	5.9%	979	\$345,709,650	0.8%	4.3% - 7.5%
Simple Pneumonia & Pleurisy (193 , 194 , 195)	11.0%	208	\$336,076,813	1.8%	7.4% - 14.6%
Esophagitis, Gastroent & Misc Digest Disorders (391 , 392)	25.9%	216	\$323,327,522	3.6%	18.9% - 33.0%
Chronic Obstructive Pulmonary Disease (190, 191 , 192)	13.6%	141	\$279,348,091	3.0%	7.6% - 19.5%
G.I. Hemorrhage (377 , 378 , 379)	15.6%	132	\$279,322,497	2.0%	11.8% - 19.5%
Psychoses (885)	8.7%	285	\$270,950,909	1.9%	5.1% - 12.4%
Chest Pain (313)	75.2%	107	\$258,124,290	4.6%	66.2% - 84.1%
Nutritional & Misc Metabolic Disorders (640, 641)	24.8%	71	\$243,915,229	3.7%	17.6% - 32.0%
Renal Failure (682 , 683 , 684)	12.0%	164	\$243,842,229	2.5%	7.1% - 17.0%
Circulatory Disorders Except AMI, W Card Cath (286 , 287)	30.1%	227	\$227,070,030	2.7%	24.8% - 35.5%
Kidney & Urinary Tract Infections (689 , 690)	17.5%	76	\$225,949,368	2.7%	12.1% - 22.8%
Other Vascular Procedures (252 , 253 , 254)	12.4%	388	\$204,360,627	1.9%	8.6% - 16.1%
Spinal Fusion Except Cervical (459 , 460)	10.3%	274	\$200,530,719	1.2%	7.9% - 12.7%
Extensive OR Procedure Unrelated To Principal Diagnosis (981 , 982 , 983)	14.5%	133	\$194,864,763	2.5%	9.7% - 19.4%
Cardiac Arrhythmia & Conduction Disorders (308 , 309 , 310)	12.8%	125	\$190,229,143	2.5%	7.9% - 17.6%
Syncope & Collapse (312)	34.7%	47	\$185,612,420	5.7%	23.5% - 45.8%
Wnd Debrid & Skn Grft Exc Hand, For Musculo-Conn Tiss Dis (463 , 464 , 465)	40.0%	56	\$185,251,846	1.1%	37.9% - 42.0%
Transient Ischemia (069)	42.0%	56	\$175,628,551	6.2%	29.9% - 54.1%
Degenerative Nervous System Disorders (056, 057)	19.4%	43	\$158,216,769	2.2%	15.1% - 23.8%
Back & Neck Proc Exc Spinal Fusion (490 , 491)	35.5%	331	\$154,648,575	3.1%	29.5% - 41.5%
G.I. Obstruction (388 , 389 , 390)	19.2%	63	\$149,087,247	4.7%	9.9% - 28.4%
Other Digestive System Diagnoses (393 , 394, 395)	19.4%	119	\$148,763,437	2.9%	13.6% - 25.1%
Red Blood Cell Disorders (811 , 812)	19.7%	61	\$130,475,274	4.1%	11.7% - 27.7%

Part A Inpatient Hospital PPS Services (MS-DRGs)	Improper Payment Rate				
	Improper Payment Rate	Number of Line Items (Sample)	Projected Improper Payments	Standard Error	95% Confidence Interval
Complications Of Treatment (919 , 920, 921)	34.3%	69	\$128,336,531	3.1%	28.3% - 40.3%
Diabetes (637 , 638 , 639)	23.6%	67	\$124,924,543	3.2%	17.2% - 29.9%
Medical Back Problems (551 , 552)	29.9%	97	\$113,418,949	4.2%	21.7% - 38.2%
Septicemia Or Severe Sepsis W/O Mv 96+ Hours (871 , 872)	1.8%	282	\$106,175,374	0.5%	0.8% - 2.9%
Intracranial Hemorrhage Or Cerebral Infarction (064 , 065 , 066)	7.0%	88	\$104,809,684	1.9%	3.2% - 10.8%
Lower Extrem & Humer Proc Except Hip,foot,femur (492 , 493 , 494)	19.9%	108	\$103,356,678	3.5%	13.1% - 26.7%
Perc Cardiovasc Proc W/O Coronary Artery Stent (250 , 251)	25.9%	313	\$102,947,503	2.5%	21.1% - 30.7%
Other Circulatory System Diagnoses (314 , 315, 316)	12.1%	48	\$101,343,361	1.7%	8.7% - 15.5%
Signs & Symptoms (947 , 948)	23.8%	55	\$96,116,260	3.5%	17.0% - 30.6%
Alcohol/Drug Abuse Or Dependence W/O Rehabilitation Therapy (896 , 897)	24.3%	31	\$88,351,220	8.5%	7.7% - 41.0%
Cellulitis (602 , 603)	7.6%	70	\$80,984,934	2.2%	3.2% - 11.9%
Uterine & Adnexa Proc For Non-Malignancy (742 , 743)	55.9%	49	\$80,295,674	4.6%	46.9% - 64.8%
Other Disorders Of Nervous System (091 , 092, 093)	23.6%	154	\$78,542,976	4.7%	14.4% - 32.8%
Atherosclerosis (302 , 303)	38.4%	51	\$75,623,821	3.3%	31.9% - 44.8%
Fx, Sprn, Stm & Disl Except Femur, Hip, Pelvis & Thigh (562 , 563)	46.0%	76	\$72,535,762	4.3%	37.6% - 54.3%
Seizures (100 , 101)	12.3%	59	\$71,915,975	2.1%	8.2% - 16.3%
Hernia Procedures Except Inguinal & Femoral (353 , 354 , 355)	33.4%	33	\$69,485,915	1.8%	29.8% - 36.9%
Laparoscopic Cholecystectomy W/O C.D.E. (417, 418 , 419)	9.1%	80	\$68,718,558	1.5%	6.1% - 12.1%
Cervical Spinal Fusion (471 , 472 , 473)	9.3%	54	\$67,518,306	2.7%	3.9% - 14.6%
Bronchitis & Asthma (202 , 203)	19.3%	53	\$65,484,958	4.4%	10.7% - 27.9%
Disorders Of Pancreas Except Malignancy (438, 439 , 440)	25.1%	38	\$64,287,362	2.6%	20.0% - 30.2%
Coronary Bypass W/O Cardiac Cath (235 , 236)	4.8%	35	\$63,902,560	0.4%	4.0% - 5.6%
Other Musculoskelet Sys & Conn Tiss OR Proc (515 , 516 , 517)	27.3%	179	\$62,232,230	2.0%	23.4% - 31.3%
Pulmonary Edema & Respiratory Failure (189)	4.8%	63	\$60,591,116	1.3%	2.2% - 7.4%
Cranial & Peripheral Nerve Disorders (073 , 074)	23.7%	135	\$58,405,557	3.9%	16.0% - 31.4%
Other Resp System OR Procedures (166 , 167 168)	6.8%	32	\$57,868,500	1.9%	3.0% - 10.6%
Nonspecific CVA & Precerebral Occlusion W/O Infarct (067 , 068)	76.1%	30	\$57,775,333	2.9%	70.4% - 81.8%
Poisoning & Toxic Effects Of Drugs (917 , 918)	13.1%	44	\$55,718,587	3.1%	6.9% - 19.3%
Traumatic Stupor & Coma, Coma <1 Hr (085, 086 , 087)	16.3%	43	\$53,241,761	4.3%	7.9% - 24.8%
Major Gastrointestinal Disorders & Peritoneal Infections (371 , 372 , 373)	7.7%	69	\$52,657,689	0.5%	6.8% - 8.6%
Major Small & Large Bowel Procedures (329, 330 , 331)	1.9%	94	\$52,241,823	1.0%	(0.0%) - 3.8%
Dysequilibrium (149)	52.1%	78	\$50,623,408	5.6%	41.2% - 63.0%

Part A Inpatient Hospital PPS Services (MS-DRGs)	Improper Payment Rate				
	Improper Payment Rate	Number of Line Items (Sample)	Projected Improper Payments	Standard Error	95% Confidence Interval
Other Kidney & Urinary Tract Procedures (673, 674 , 675)	12.7%	158	\$50,071,023	1.6%	9.6% - 15.8%
Major Cardiovasc Procedures (237 , 238)	5.1%	49	\$47,351,180	1.7%	1.8% - 8.5%
Craniotomy & Endovascular Intracranial Procedures (025 , 026 , 027)	5.7%	35	\$45,587,719	0.2%	5.4% - 6.0%
Other Kidney & Urinary Tract Diagnoses (698, 699 , 700)	5.4%	42	\$43,652,852	2.0%	1.5% - 9.2%
Thyroid, Parathyroid & Thyroglossal Procedures (625 , 626 , 627)	39.9%	84	\$43,367,475	1.6%	36.8% - 43.1%
Cardiac Valve & Oth Maj Cardiothoracic Proc W/O Card Cath (219 , 220 , 221)	2.6%	59	\$42,954,061	0.1%	2.4% - 2.9%
Signs & Symptoms Of Musculoskeletal System & Conn Tissue (555 , 556)	54.8%	45	\$42,565,047	5.9%	43.3% - 66.2%
Cardiac Valve & Oth Maj Cardiothoracic Proc W Card Cath (216 , 217 , 218)	6.4%	49	\$41,975,090	3.4%	(0.3%) - 13.0%
Biopsies Of Musculoskeletal System & Connective Tissue (477 , 478 , 479)	25.0%	158	\$41,966,598	1.8%	21.6% - 28.5%
Perc Cardiovasc Proc W Non-Drug-Eluting Stent (248 , 249)	4.9%	60	\$37,178,046	2.2%	0.6% - 9.1%
Trauma To The Skin, Subcut Tiss & Breast (604, 605)	25.5%	85	\$36,895,635	4.6%	16.6% - 34.5%
Major Joint & Limb Reattachment Proc Of Upper Extremity (483 , 484)	5.7%	81	\$34,455,137	1.3%	3.1% - 8.3%
Respiratory Infections & Inflammations (177, 178 , 179)	1.8%	76	\$34,085,651	0.4%	0.9% - 2.6%
Other Respiratory System Diagnoses (205 , 206)	18.3%	52	\$33,813,572	2.4%	13.6% - 23.1%
Other Circulatory System OR Procedures (264)	9.7%	221	\$32,089,837	2.0%	5.7% - 13.7%
Respiratory Signs & Symptoms (204)	42.5%	47	\$32,036,179	5.9%	30.9% - 54.0%
Acute Myocardial Infarction, Discharged Alive (280 , 281 , 282)	2.5%	79	\$31,116,326	0.9%	0.7% - 4.3%
Other Skin, Subcut Tiss & Breast Proc (579, 580, 581)	6.6%	135	\$30,862,909	1.4%	3.9% - 9.3%
Hypertension (304 , 305)	19.9%	53	\$29,904,658	3.8%	12.4% - 27.4%
Bone Diseases & Arthropathies (553 , 554)	44.9%	78	\$29,124,039	4.8%	35.5% - 54.3%
Stomach, Esophageal & Duodenal Proc (326, 327, 328)	2.7%	94	\$27,983,024	0.8%	1.2% - 4.3%
Other Digestive System OR Procedures (356, 357 , 358)	6.6%	51	\$26,510,268	3.9%	(1.1%) - 14.3%
Female Reproductive System Reconstructive Procedures (748)	55.0%	77	\$25,288,155	6.1%	43.0% - 67.0%
Transurethral Prostatectomy (713 , 714)	33.6%	154	\$24,168,541	2.6%	28.4% - 38.7%
Postoperative Or Post-Traumatic Infections W OR Proc (856 , 857 , 858)	9.0%	37	\$23,568,273	0.6%	7.8% - 10.3%
Fever (864)	23.4%	30	\$21,488,757	3.1%	17.3% - 29.6%
Rehabilitation (945 , 946)	45.6%	117	\$20,840,334	6.8%	32.3% - 59.0%
Otitis Media & Uri (152 , 153)	21.0%	50	\$19,578,553	1.8%	17.5% - 24.6%
Major Chest Procedures (163 , 164 , 165)	1.7%	67	\$17,811,414	0.1%	1.5% - 1.9%
Postoperative & Post-Traumatic Infections (862, 863)	3.7%	40	\$17,757,311	0.7%	2.3% - 5.2%
Revision Of Hip Or Knee Replacement (466, 467, 468)	3.1%	52	\$17,211,085	0.5%	2.1% - 4.0%
Respiratory System Diagnosis W Ventilator Support <96 Hours (208)	1.3%	34	\$14,898,095	0.2%	1.0% - 1.7%

Part A Inpatient Hospital PPS Services (MS-DRGs)	Improper Payment Rate				
	Improper Payment Rate	Number of Line Items (Sample)	Projected Improper Payments	Standard Error	95% Confidence Interval
AICD Generator Procedures (245)	25.6%	502	\$13,970,043	2.0%	21.7% - 29.6%
Disorders Of The Biliary Tract (444 , 445 , 446)	6.5%	32	\$13,937,577	1.7%	3.2% - 9.9%
Angina Pectoris (311)	61.4%	46	\$13,692,318	5.7%	50.2% - 72.6%
Cardiac Pacemaker Device Replacement (258, 259)	38.6%	133	\$12,348,926	6.0%	26.9% - 50.3%
OR Procedures For Obesity (619 , 620 , 621)	3.6%	41	\$10,861,890	1.1%	1.4% - 5.9%
Trach W MV 96+ Hrs Or Pdx Exc Face, Mouth & Neck (004)	0.3%	122	\$7,329,712	0.2%	(0.1%) - 0.7%
Spinal Fus Exc Cerv W Spinal Curv/Malig/Infec Or 9+ Fus (456 , 457, 458)	1.6%	295	\$7,064,787	0.1%	1.4% - 1.8%
Combined Anterior/Posterior Spinal Fusion (453, 454 , 455)	0.9%	306	\$5,988,180	0.2%	0.5% - 1.3%
Pulmonary Embolism (175 , 176)	1.5%	36	\$5,878,570	0.1%	1.3% - 1.7%
Tendonitis, Myositis & Bursitis (557 , 558)	4.2%	30	\$5,774,711	1.5%	1.3% - 7.1%
Hip & Femur Procedures Except Major Joint (480 , 481 , 482)	0.3%	49	\$5,397,557	0.3%	(0.3%) - 1.0%
Coronary Bypass W Cardiac Cath (233 , 234)	0.5%	54	\$4,764,564	0.5%	0.5%) - 1.5%
Major Male Pelvic Procedures (707 , 708)	3.6%	30	\$3,122,109	2.1%	(0.6%) - 7.7%
Extracranial Procedures (037 , 038 , 039)	0.5%	40	\$2,657,741	0.1%	0.4% - 0.7%
All TOS (Incl. Codes Not Listed)	12.2%	14,359	\$13,784,909,827	0.5%	11.2% - 13.2%

Appendix F: Projected Improper Payments by Provider Type for Each Claim Type

This series of tables is sorted in descending order by projected improper payments. All estimates in this table are based on a minimum of 30 lines in the sample.

**Table F1: Improper Payment Rates and Amounts by Provider Type:
Part B**

Providers Billing to Part B	Improper Payment Rate				Provider Compliance Improper Payment Rate
	Improper Payment Rate	Projected Improper Payments	Sampled Claims	95% Confidence Interval	
Internal Medicine	16.3%	\$1,519,049,286	2,080	14.9% - 17.8%	23.9%
Clinical Laboratory (Billing Independently)	33.8%	\$1,191,685,148	2,332	28.4% - 39.2%	37.8%
Cardiology	14.4%	\$726,037,520	1,097	12.4% - 16.3%	21.4%
Ambulance Service Supplier (e.g., private ambulance companies)	12.4%	\$716,920,640	562	9.4% - 15.5%	19.7%
Family Practice	13.2%	\$694,423,304	964	11.0% - 15.4%	21.4%
Physical Therapist in Private Practice	29.5%	\$514,773,105	510	24.4% - 34.5%	32.7%
Diagnostic Radiology	12.6%	\$475,920,790	1,324	9.5% - 15.8%	20.1%
Orthopedic Surgery	11.4%	\$474,742,286	397	9.6% - 13.1%	19.5%
Emergency Medicine	12.5%	\$334,517,738	475	10.5% - 14.5%	18.9%
Chiropractic	54.1%	\$303,816,558	718	48.9% - 59.4%	56.5%
Hematology/Oncology	6.1%	\$286,607,276	363	4.9% - 7.4%	13.0%
Nephrology	14.6%	\$248,040,636	304	11.8% - 17.4%	18.2%
Ophthalmology	3.5%	\$239,206,421	656	2.6% - 4.4%	12.9%
Pulmonary Disease	16.5%	\$238,595,803	311	13.6% - 19.4%	23.7%
Neurology	18.5%	\$225,091,586	198	15.8% - 21.2%	24.8%
Podiatry	13.1%	\$224,147,105	245	8.9% - 17.4%	18.6%
Psychiatry	21.0%	\$194,444,362	278	17.9% - 24.0%	28.2%
Gastroenterology	10.5%	\$178,917,505	262	6.8% - 14.1%	17.2%
All Provider Types W Less Than 30 Claims	11.4%	\$178,714,371	232	6.7% - 16.1%	39.1%
Urology	9.0%	\$151,655,078	191	6.8% - 11.3%	23.6%
Clinical Psychologist	24.4%	\$129,826,832	152	14.1% - 34.8%	30.3%
General Surgery	7.7%	\$123,941,405	293	5.9% - 9.5%	23.6%
Physical Medicine and Rehabilitation	14.9%	\$114,302,982	163	11.9% - 17.9%	33.5%

Providers Billing to Part B	Improper Payment Rate				Provider Compliance Improper Payment Rate
	Improper Payment Rate	Projected Improper Payments	Sampled Claims	95% Confidence Interval	
Otolaryngology	13.5%	\$110,599,881	81	12.2% - 14.7%	21.5%
Nurse Practitioner	5.8%	\$105,009,838	360	4.4% - 7.2%	12.6%
Dermatology	4.3%	\$100,743,987	212	2.2% - 6.4%	10.0%
Clinical Social Worker	33.9%	\$88,895,643	114	27.6% - 40.2%	39.8%
Infectious Disease	12.9%	\$86,717,028	120	7.9% - 18.0%	18.9%
Anesthesiology	4.7%	\$86,281,364	209	2.2% - 7.2%	15.4%
Physician Assistant	8.8%	\$82,095,903	277	7.2% - 10.5%	23.9%
Radiation Oncology	6.2%	\$72,615,371	176	3.4% - 9.1%	12.6%
Interventional Pain Management	13.3%	\$69,404,084	92	5.9% - 20.8%	17.2%
Rheumatology	4.1%	\$64,617,337	70	3.8% - 4.4%	10.0%
Endocrinology	17.3%	\$64,615,110	64	15.0% - 19.7%	20.6%
Critical Care (Intensivists)	32.6%	\$64,371,549	62	19.3% - 45.9%	37.8%
Pathology	7.4%	\$59,620,385	176	4.1% - 10.7%	14.2%
Obstetrics/Gynecology	9.0%	\$54,610,866	61	6.6% - 11.4%	10.7%
General Practice	9.7%	\$47,260,701	71	8.2% - 11.2%	16.3%
IDTF	7.7%	\$45,174,015	77	3.6% - 11.8%	20.0%
CRNA	4.4%	\$43,799,634	128	0.0% - 8.8%	9.3%
Optometry	5.6%	\$42,483,372	132	2.2% - 9.0%	17.6%
Allergy/Immunology	27.7%	\$40,552,393	35	24.9% - 30.6%	27.0%
Occupational Therapist in Private Practice	27.4%	\$36,054,892	42	23.7% - 31.1%	36.0%
Vascular Surgery	5.4%	\$31,315,841	49	4.8% - 6.0%	8.5%
Ambulatory Surgical Center	1.5%	\$28,376,982	172	(0.5%) - 3.4%	15.0%
Medical Oncology	2.4%	\$27,405,364	108	1.2% - 3.5%	3.4%
Pain Management	12.2%	\$26,655,310	50	0.6% - 23.7%	34.2%
Unassigned	6.7%	\$21,757,505	98	4.3% - 9.2%	13.0%
Geriatric Medicine	8.0%	\$21,027,161	54	7.6% - 8.5%	16.7%
Neurosurgery	9.6%	\$16,480,113	53	9.4% - 9.7%	19.7%
Cardiac Surgery	4.2%	\$8,694,610	55	4.0% - 4.4%	14.3%
Interventional Radiology	4.7%	\$4,613,199	39	0.7% - 8.6%	34.0%
Thoracic Surgery	0.4%	\$1,861,408	45	0.4% - 0.4%	0.7%
Mass Immunization Roster Billers	0.0%	\$0	82	0.0% - 0.0%	5.4%
All Provider Types	12.1%	\$11,039,088,581	17,454	11.2% - 13.1%	20.4%

**Table F2: Improper Payment Rates and Amounts by Provider Type:
DMEPOS**

Providers Billing to DMEPOS	Improper Payment Rate				Provider Compliance Improper Payment Rate
	Improper Payment Rate	Projected Improper Payments	Sampled Claims	95% Confidence Interval	
Medical supply company not included in 51, 52, or 53	55.6%	\$2,603,262,182	5,250	53.0% - 58.2%	57.4%
Pharmacy	48.8%	\$1,391,603,676	2,570	44.3% - 53.3%	50.4%
Medical Supply Company W Respiratory Therapist	59.0%	\$509,696,706	1,019	53.7% - 64.3%	60.3%
Podiatry	60.5%	\$97,811,867	114	48.4% - 72.7%	64.9%
Individual prosthetic personnel certified by an accrediting organization	39.5%	\$89,354,973	596	29.7% - 49.3%	39.8%
Individual orthotic personnel certified by an accrediting organization	47.8%	\$83,579,831	458	39.7% - 56.0%	50.3%
Medical supply company W pros/orth personnel certified by accr organization	58.7%	\$78,205,625	270	39.7% - 77.7%	80.5%
All Provider Types W Less Than 30 Claims	40.4%	\$67,781,259	214	27.2% - 53.5%	42.5%
Medical supply company W orthotic personnel certified by accr organization	52.1%	\$57,290,457	167	43.9% - 60.4%	51.4%
Supplier of oxygen and/or oxygen related equipment	67.4%	\$32,595,873	48	52.7% - 82.1%	70.2%
General Practice	68.9%	\$22,586,026	30	56.7% - 81.0%	73.0%
Orthopedic Surgery	28.1%	\$19,667,575	92	13.9% - 42.3%	32.2%
Medical supply company W prosthetic personnel certified by accr organization	68.3%	\$18,850,377	75	60.7% - 75.9%	66.8%
Individual prosthetic/orthotic personnel certified by an accrediting organization	43.2%	\$11,410,116	46	40.2% - 46.2%	44.7%
Optometry	47.3%	\$10,090,779	30	26.7% - 67.9%	53.4%
All Provider Types	53.1%	\$5,093,787,323	10,979	51.1% - 55.1%	55.4%

**Table F3: Improper Payment Rates and Amounts by Provider Type:
Part A Excluding Inpatient Hospital PPS**

Providers Billing to Part A Excluding Inpatient Hospital PPS	Improper Payment Rate			
	Improper Payment Rate	Projected Improper Payments	Sampled Claims	95% Confidence Interval
HHA	51.4%	\$9,395,609,515	1,319	47.5% - 55.3%
OPPS, Laboratory, Ambulatory	7.5%	\$3,618,366,167	2,098	4.5% - 10.4%
SNF	6.9%	\$2,647,718,037	1,604	5.3% - 8.6%
ESRD	10.7%	\$1,168,927,796	525	8.0% - 13.4%
Inpatient Rehabilitation Hospitals	26.8%	\$816,227,525	138	15.0% - 38.5%
Hospice	4.3%	\$593,896,124	423	2.0% - 6.5%
Inpatient Rehab Unit	14.8%	\$467,667,746	146	9.5% - 20.1%
CAH Outpatient Services	5.7%	\$252,278,396	292	1.6% - 9.8%
ORF	14.7%	\$100,522,316	102	0.7% - 28.7%
All Codes W Less Than 30 Claims	37.3%	\$34,442,910	9	20.3% - 54.3%
RHCs	2.6%	\$26,153,649	426	1.2% - 4.0%
Inpatient CAH	0.7%	\$17,177,127	272	(0.5%) - 1.9%
FQHC	1.8%	\$14,343,587	274	0.4% - 3.2%
CORF	24.2%	\$10,543,237	79	12.9% - 35.6%
Other Service Types Billing Part A MAC	34.5%	\$7,336,465	3	N/A
Non PPS Short Term Hospital Inpatient	0.3%	\$2,435,009	42	(0.3%) - 0.8%
Overall	13.1%	\$19,173,645,606	7,752	11.4% - 14.8%

**Table F4: Improper Payment Rates and Amounts by Provider Type:
Part A Inpatient Hospital PPS**

Providers Billing to Part A Inpatient Hospital PPS	Improper Payment Rate			
	Improper Payment Rate	Projected Improper Payments	Sampled Claims	95% Confidence Interval
DRG Short Term	12.4%	\$13,012,526,794	13,983	11.3% - 13.4%
DRG Long Term	8.5%	\$399,702,370	85	6.0% - 11.0%
Other Service Types Billed to Part A MAC	11.1%	\$372,680,663	291	7.0% - 15.3%
Overall	12.2%	\$13,784,909,827	14,359	11.2% - 13.2%

Table F5: Improper Payment Rates and Improper Payments by Provider Type and Length of Stay: Part A Inpatient Hospital PPS

Length of Stay	Improper Payment Rate	Number of Line Items (Sample)	Projected Improper Payments	95% Confidence Interval
Overall Part A(Inpatient Hospital PPS)	12.2%	14,359	\$13,784,909,827	11.2% - 13.2%
Less than or 1 day	37.1%	2,465	\$3,328,816,921	33.5% - 40.6%
2 days	20.2%	2,488	\$2,580,820,913	17.4% - 23.0%
3 days	12.9%	2,610	\$2,001,653,807	11.1% - 14.7%
4 days	10.9%	1,761	\$1,260,348,987	9.0% - 12.7%
5 days	7.5%	1,183	\$735,297,541	5.8% - 9.2%
More than 5 days	7.1%	3,852	\$3,877,971,658	5.5% - 8.7%

Appendix G – Improper Payment Rates and Type of Error by Provider Type for Each Claim Type

Table G1: Improper Payment Rates by Provider Type and Type of Error: Part B

Provider Types Billing to Part B	Improper Payment Rate	Number of Claims in Sample	Type of Error				
			No Doc	Insufficient Doc	Medical Necessity	Incorrect Coding	Other
Chiropractic	54.1%	718	2.1%	92.2%	4.8%	0.5%	0.3%
Clinical Social Worker	33.9%	114	0.7%	99.3%	0.0%	0.0%	0.0%
Clinical Laboratory (Billing Independently)	33.8%	2,332	0.2%	92.2%	6.9%	0.5%	0.1%
Critical Care (Intensivists)	32.6%	62	0.0%	47.5%	0.0%	33.8%	18.7%
Physical Therapist in Private Practice	29.5%	510	0.1%	95.7%	0.0%	1.7%	2.5%
Allergy/Immunology	27.7%	35	0.0%	77.1%	0.0%	22.9%	0.0%
Occupational Therapist in Private Practice	27.4%	42	0.0%	100.0%	0.0%	0.0%	0.0%
Clinical Psychologist	24.4%	152	0.0%	93.9%	0.0%	3.5%	2.6%
Psychiatry	21.0%	278	0.0%	59.9%	0.5%	39.4%	0.2%
Neurology	18.5%	198	1.2%	18.1%	0.0%	56.7%	24.1%
Endocrinology	17.3%	64	2.5%	55.9%	0.1%	40.4%	1.1%
Pulmonary Disease	16.5%	311	2.5%	46.5%	0.0%	48.0%	3.0%
Internal Medicine	16.3%	2,080	2.5%	55.3%	0.3%	41.9%	0.0%
Physical Medicine and Rehabilitation	14.9%	163	0.0%	56.4%	0.0%	43.6%	0.0%
Nephrology	14.6%	304	4.6%	54.5%	0.0%	40.9%	0.0%
Cardiology	14.4%	1,097	3.4%	57.8%	1.7%	35.7%	1.4%
Otolaryngology	13.5%	81	7.4%	62.5%	0.0%	27.1%	2.9%
Interventional Pain Management	13.3%	92	0.0%	97.6%	0.1%	2.3%	0.0%
Family Practice	13.2%	964	3.2%	53.1%	0.6%	42.6%	0.4%
Podiatry	13.1%	245	3.4%	61.1%	2.5%	22.0%	11.1%
Infectious Disease	12.9%	120	0.0%	45.4%	0.0%	54.6%	0.0%
Diagnostic Radiology	12.6%	1,324	0.2%	98.5%	0.0%	0.2%	1.2%
Emergency Medicine	12.5%	475	0.0%	32.5%	0.0%	65.5%	2.0%
Ambulance Service Supplier	12.4%	562	0.0%	81.3%	12.6%	6.1%	0.0%

Provider Types Billing to Part B	Improper Payment Rate	Number of Claims in Sample	Type of Error				
			No Doc	Insufficient Doc	Medical Necessity	Incorrect Coding	Other
Pain Management	12.2%	50	0.0%	78.8%	7.1%	14.1%	0.0%
All Provider Types W Less Than 30 Claims	11.4%	232	18.6%	44.1%	12.9%	23.9%	0.5%
Orthopedic Surgery	11.4%	397	1.4%	69.5%	0.0%	23.4%	5.7%
Gastroenterology	10.5%	262	1.1%	54.6%	0.0%	44.2%	0.0%
General Practice	9.7%	71	1.8%	35.6%	0.0%	62.6%	0.0%
Neurosurgery	9.6%	53	0.0%	24.2%	0.0%	75.8%	0.0%
Urology	9.0%	191	2.3%	57.3%	0.0%	40.4%	0.0%
Obstetrics/Gynecology	9.0%	61	0.2%	44.3%	0.0%	55.5%	0.0%
Physician Assistant	8.8%	277	0.0%	52.4%	0.0%	43.3%	4.4%
Geriatric Medicine	8.0%	54	0.0%	27.1%	0.0%	72.9%	0.0%
General Surgery	7.7%	293	1.1%	41.1%	1.1%	56.6%	0.0%
IDTF	7.7%	77	0.0%	100.0%	0.0%	0.0%	0.0%
Pathology	7.4%	176	0.5%	98.6%	0.0%	0.9%	0.0%
Unassigned	6.7%	98	0.0%	76.3%	2.4%	21.1%	0.3%
Radiation Oncology	6.2%	176	0.0%	96.8%	0.0%	3.2%	0.0%
Hematology/Oncology	6.1%	363	0.6%	70.9%	0.9%	27.6%	0.0%
Nurse Practitioner	5.8%	360	1.9%	54.4%	0.1%	43.6%	0.0%
Optometry	5.6%	132	0.7%	93.6%	0.0%	5.7%	0.0%
Vascular Surgery	5.4%	49	0.0%	50.8%	0.0%	19.1%	30.1%
Anesthesiology	4.7%	209	0.0%	98.6%	0.4%	1.1%	0.0%
Interventional Radiology	4.7%	39	0.0%	100.0%	0.0%	0.0%	0.0%
CRNA	4.4%	128	0.0%	100.0%	0.0%	0.0%	0.0%
Dermatology	4.3%	212	0.0%	56.9%	0.0%	17.1%	26.0%
Cardiac Surgery	4.2%	55	0.0%	19.8%	1.5%	78.7%	0.0%
Rheumatology	4.1%	70	0.0%	68.8%	0.0%	31.2%	0.0%
Ophthalmology	3.5%	656	0.5%	73.8%	0.9%	24.8%	0.0%
Medical Oncology	2.4%	108	0.0%	69.7%	1.1%	29.2%	0.0%
Ambulatory Surgical Center	1.5%	172	0.0%	100.0%	0.0%	0.0%	0.0%
Thoracic Surgery	0.4%	45	0.0%	38.3%	0.0%	61.7%	0.0%
Mass Immunization Roster Billers	0.0%	82	N/A	N/A	N/A	N/A	N/A
All Provider Types	12.1%	17,454	1.7%	68.1%	2.2%	26.1%	1.9%

**Table G2: Improper Payment Rates by Provider Type and Type of Error:
DMEPOS**

Provider Types Billing to DMEPOS	Improper Payment Rate	Number of Claims in Sample	Type of Error				
			No Doc	Insufficient Doc	Medical Necessity	Incorrect Coding	Other
General Practice	68.9%	30	0.0%	100.0%	0.0%	0.0%	0.0%
Med supply company W prosth personnel cert by accred org	68.3%	75	0.0%	97.7%	0.1%	0.3%	2.0%
Supplier of oxygen and/or oxygen related equipment	67.4%	48	4.3%	95.7%	0.0%	0.0%	0.0%
Podiatry	60.5%	114	0.0%	97.5%	0.0%	0.0%	2.5%
Medical Supply Company W Respiratory Therapist	59.0%	1,019	0.4%	95.2%	2.1%	0.2%	2.1%
Med supply co W prost/orthotic personnel cert by accred org	58.7%	270	0.0%	98.3%	0.6%	0.0%	1.0%
Medical supply company not included in 51, 52, or 53	55.6%	5,250	0.6%	92.0%	4.4%	0.1%	2.9%
Medical supply co W orthotic personnel cert by accred org	52.1%	167	1.3%	89.3%	1.1%	2.7%	5.7%
Pharmacy	48.8%	2,570	0.4%	92.0%	3.6%	0.5%	3.5%
Individual orthotic personnel certified by accrediting org	47.8%	458	0.0%	87.0%	1.4%	0.0%	11.6%
Optometry	47.3%	30	0.0%	70.0%	0.0%	0.0%	30.0%
Individual prosth/orthotic personnel cert by accred org	43.2%	46	0.0%	97.8%	0.0%	0.0%	2.2%
All Provider Types W Less Than 30 Claims	40.4%	214	2.7%	86.6%	2.0%	0.0%	8.7%
Individual prosth personnel certified by accred org	39.5%	596	0.4%	94.4%	1.3%	0.3%	3.7%
Orthopedic Surgery	28.1%	92	0.0%	100.0%	0.0%	0.0%	0.0%
All Provider Types	53.1%	10,979	0.6%	92.4%	3.5%	0.3%	3.2%

**Table G3: Improper Payment Rates by Provider Type and Type of Error:
Part A Excluding Inpatient Hospital PPS**

Provider Types Billing to Part A Excluding Inpatient Hospital PPS	Improper Payment Rate	Number of Claims in Sample	Type of Error				
			No Doc	Insufficient Doc	Medical Necessity	Incorrect Coding	Other
HHA	51.4%	1,319	0.4%	90.0%	8.9%	0.1%	0.6%
All Codes W Less Than 30 Claims	37.3%	9	0.0%	100.0%	0.0%	0.0%	0.0%
Other Service Types Billed to Part A Excluding Inpt Hosp PPS	34.5%	3	0.0%	0.0%	0.0%	0.0%	100.0%
Inpatient Rehabilitation Hospitals	26.8%	138	0.0%	27.3%	72.7%	0.0%	0.0%
CORF	24.2%	79	0.0%	71.3%	20.5%	4.1%	4.1%
Inpatient Rehab Unit	14.8%	146	0.0%	81.3%	18.7%	0.0%	0.0%
ORF	14.7%	102	0.0%	99.4%	0.0%	0.6%	0.0%
ESRD	10.7%	525	0.0%	97.4%	2.3%	0.0%	0.3%
OPPS, Laboratory, Ambulatory	7.5%	2,098	0.5%	95.4%	1.6%	2.4%	0.2%
SNF	6.9%	1,604	0.0%	75.5%	3.5%	14.3%	6.7%
CAH Outpatient Services	5.7%	292	0.0%	92.7%	1.0%	5.8%	0.5%
Hospice	4.3%	423	0.0%	68.5%	21.8%	7.6%	2.1%
RHCs	2.6%	426	15.7%	70.9%	0.0%	0.0%	13.4%
FQHC	1.8%	274	0.0%	100.0%	0.0%	0.0%	0.0%
Inpatient CAH	0.7%	272	0.0%	6.3%	0.0%	0.0%	93.7%
Non PPS Short Term Hospital Inpatient	0.3%	42	0.0%	0.0%	0.0%	0.0%	100.0%
All Provider Types	13.1%	7,752	0.3%	85.9%	9.6%	2.8%	1.5%

**Table G4: Improper Payment Rates by Provider Type and Type of Error:
Part A Inpatient Hospital PPS**

Provider Types Billing to Part A Inpatient Hospital PPS	Improper Payment Rate	Number of Claims in Sample	Type of Error				
			No Doc	Insufficient Doc	Medical Necessity	Incorrect Coding	Other
DRG Short Term	12.4%	13,983	0.2%	5.0%	77.2%	16.8%	0.9%
Other Service Types Billed to Part A Inpatient Hosp PPS	11.1%	291	0.0%	42.0%	55.4%	0.0%	2.6%
DRG Long Term	8.5%	85	0.0%	0.0%	91.1%	1.3%	7.6%
All Provider Types	12.2%	14,359	0.2%	5.8%	77.0%	15.9%	1.1%

Appendix H: Coding Information

Table H1: Problem Code: CPT Code 99233

Fiscal Year	Number of Lines Reviewed	Number of Lines Questioned	Percent of Lines in Error
1996	217	115	53.0%
1997	416	128	30.8%
1998	457	114	24.9%
1999	187	102	54.5%
2000	449	220	49.0%
2001	338	142	42.0%
2002	228	174	76.3%
2003	709	435	61.4%
2004	768	391	50.9%
2005	1,079	474	43.9%
2006	1,102	440	39.9%
2007	1,157	532	46.0%
2008	1,032	489	47.4%
2009	882	433	49.1%
2010	697	366	52.5%
2011	611	316	51.7%
2012	992	586	59.1%
2013	1,255	626	49.9%
2014	1,268	739	58.3%

Table H2: Problem Code: CPT Code 99214

Fiscal Year	Number of Lines Reviewed	Number of Lines Questioned	Percent of Lines in Error
1996	140	54	38.6%
1997	234	86	36.8%
1998	168	63	37.5%
1999	143	81	56.6%
2000	191	71	37.2%
2001	214	67	31.3%
2002	104	24	23.1%
2003	2,798	687	24.6%
2004	3,250	589	18.1%
2005	4,436	648	14.6%
2006	4,491	609	13.6%
2007	4,287	602	14.0%
2008	4,301	608	14.1%
2009	3,342	617	18.5%
2010	2,829	569	20.1%
2011	2,316	404	17.4%
2012	1,403	260	18.5%
2013	922	111	12.0%
2014	902	131	14.5%

Table H3: Problem Code: CPT Code 99232

Fiscal Year	Number of Lines Reviewed	Number of Lines Questioned	Percent of Lines in Error
1996	597	266	44.6%
1997	1,159	350	30.2%
1998	911	181	19.9%
1999	837	279	33.3%
2000	881	270	30.6%
2001	964	146	15.1%
2002	488	179	36.7%
2003	2,213	855	38.6%
2004	2,485	754	30.3%
2005	3,194	555	17.4%
2006	3,236	295	9.1%
2007	3,164	393	12.4%
2008	2,728	316	11.6%
2009	2,180	326	15.0%
2010	1,693	290	17.1%
2011	1,600	240	15.0%
2012	1,490	221	14.8%
2013	1,201	176	14.7%
2014	1,297	214	16.5%

Table H4 provides information on the impact of one-level disagreement between Part B MACs and providers when coding E&M services.

Table H4: Impact of 1-Level E&M (Top 20)

Final E & M Codes	Incorrect Coding Errors		
	Improper Payment Rate	Projected Improper Payments	95% Confidence Interval
Subsequent hospital care (99233)	14.1%	\$257,875,722	12.9% - 15.3%
Office/outpatient visit est (99214)	3.6%	\$249,897,889	2.8% - 4.3%
Emergency dept visit (99285)	11.6%	\$166,958,571	9.2% - 14.1%
Office/outpatient visit est (99213)	2.2%	\$122,690,445	1.3% - 3.1%
Office/outpatient visit est (99215)	10.4%	\$109,304,412	8.4% - 12.3%
Office/outpatient visit new (99204)	9.1%	\$103,072,659	6.5% - 11.7%
Subsequent hospital care (99232)	3.0%	\$80,852,497	2.1% - 3.9%
Initial hospital care (99223)	3.2%	\$61,583,350	2.5% - 3.9%
Initial hospital care (99222)	8.6%	\$61,514,052	6.7% - 10.6%
Office/outpatient visit new (99203)	6.5%	\$55,799,414	3.6% - 9.3%
Office/outpatient visit est (99212)	6.7%	\$42,488,606	3.1% - 10.3%
Hospital discharge day (99239)	7.9%	\$25,448,470	6.3% - 9.4%
Nursing fac care subseq (99309)	4.4%	\$22,262,381	2.7% - 6.1%
Office/outpatient visit new (99205)	4.2%	\$20,799,332	2.8% - 5.6%
Nursing fac care subseq (99310)	12.0%	\$13,576,943	8.7% - 15.3%
Subsequent hospital care (99231)	3.5%	\$11,438,567	1.7% - 5.3%
Nursing fac care subseq (99307)	8.1%	\$9,146,506	3.3% - 12.8%
Nursing facility care init (99306)	4.1%	\$6,637,090	1.8% - 6.3%
Emergency dept visit (99283)	3.4%	\$6,338,872	1.0% - 5.7%
Office/outpatient visit new (99202)	4.0%	\$5,836,489	(0.4%) - 8.4%
All Other Codes	0.1%	\$46,772,457	0.0% - 0.1%
Overall	1.6%	\$1,480,294,722	1.5% - 1.8%

**Table H5: Type of Services with Upcoding² Errors:
Part B**

Part B Services (BETOS Codes)	Upcoding Errors		
	Improper Payment Rate	Projected Improper Payments	95% Confidence Interval
Hospital visit - initial	20.8%	\$605,072,311	19.1% - 22.4%
Office visits - established	4.0%	\$575,057,387	3.4% - 4.5%
Hospital visit - subsequent	8.2%	\$466,223,892	7.4% - 9.1%
Office visits - new	13.2%	\$353,292,535	11.1% - 15.2%
Emergency room visit	9.7%	\$210,772,375	7.8% - 11.5%
Nursing home visit	9.0%	\$174,879,462	7.4% - 10.7%
Hospital visit - critical care	13.6%	\$136,940,955	10.4% - 16.8%
Ambulance	0.8%	\$43,530,485	0.3% - 1.2%
Dialysis services (Medicare Fee Schedule)	3.8%	\$28,873,775	2.3% - 5.3%
Eye procedure - cataract removal/lens insertion	1.0%	\$18,172,660	(0.7%) - 2.6%
Specialist - ophthalmology	0.6%	\$14,498,244	(0.1%) - 1.2%
Specialist - other	1.7%	\$12,041,203	(1.0%) - 4.5%
Home visit	3.7%	\$9,303,538	(0.5%) - 7.8%
Lab tests - blood counts	2.9%	\$8,999,752	1.8% - 4.1%
Minor procedures - other (Medicare fee schedule)	0.2%	\$6,575,619	0.0% - 0.4%
Other drugs	0.1%	\$3,228,939	(0.0%) - 0.1%
Standard imaging - other	1.2%	\$3,216,994	(1.1%) - 3.6%
Advanced imaging - MRI/MRA: other	0.3%	\$3,045,187	0.2% - 0.3%
Specialist - psychiatry	0.2%	\$2,054,378	(0.1%) - 0.4%
Chiropractic	0.3%	\$1,590,914	0.0% - 0.5%
All Other Codes	0.0%	\$6,058,433	0.0% - 0.0%
Overall	3.0%	\$2,683,429,038	2.7% - 3.2%

² Upcoding refers to billing a higher level service or a service with a higher payment than is supported by the medical record documentation.

**Table H6: Type of Services with Upcoding Errors:
DMEPOS**

DMEPOS Services (HCPCS)	Upcoding Errors		
	Improper Payment Rate	Projected Improper Payments	95% Confidence Interval
Glucose Monitor	1.0%	\$11,524,472	0.3% - 1.6%
Lower Limb Orthoses	0.4%	\$1,542,943	(0.4%) - 1.2%
Lower Limb Prostheses	0.1%	\$312,540	(0.1%) - 0.2%
Immunosuppressive Drugs	0.1%	\$224,428	(0.1%) - 0.2%
Surgical Dressings	0.0%	\$45,092	0.0% - 0.0%
Oxygen Supplies/Equipment	0.0%	\$34,810	0.0% - 0.0%
Hospital Beds/Accessories	0.0%	\$22,031	(0.0%) - 0.0%
Support Surfaces	0.0%	\$3,800	(0.0%) - 0.0%
Overall	0.1%	\$13,710,115	0.1% - 0.2%

**Table H7: Type of Services with Upcoding Errors:
Part A Excluding Inpatient Hospital PPS**

Part A Services Excluding Inpatient Hospital PPS (TOB)	Upcoding Errors		
	Improper Payment Rate	Projected Improper Payments	95% Confidence Interval
SNF Inpatient	0.9%	\$333,085,696	0.6% - 1.3%
Hospital Outpatient	0.1%	\$63,246,188	(0.0%) - 0.3%
Nonhospital based hospice	0.3%	\$43,406,073	(0.3%) - 1.0%
Hospital Inpatient Part B	4.3%	\$20,784,557	(4.1%) - 12.7%
SNF Inpatient Part B	0.6%	\$16,055,408	(0.4%) - 1.6%
CAH	0.2%	\$10,843,050	(0.1%) - 0.6%
Home Health	0.0%	\$4,795,481	(0.0%) - 0.1%
Hospital based hospice	0.1%	\$1,463,830	(0.1%) - 0.3%
Hospital Other Part B	0.2%	\$1,083,852	0.0% - 0.4%
Clinic CORF	1.0%	\$430,749	0.1% - 1.9%
Clinic OPT	0.1%	\$348,770	(0.1%) - 0.2%
Clinic ESRD	0.0%	\$15,717	(0.0%) - 0.0%
Overall	0.3%	\$495,559,370	0.2% - 0.5%

**Table H8: Type of Services with Upcoding Errors:
Part A Inpatient Hospital PPS**

Part A Inpatient Hospital PPS Services (MS-DRGs)	Upcoding Errors		
	Improper Payment Rate	Projected Improper Payments	95% Confidence Interval
Simple Pneumonia & Pleurisy (193 , 194, 195)	1.4%	\$42,509,544	0.2% - 2.6%
Other Resp System OR Procedures (166, 167 , 168)	4.8%	\$40,379,050	4.5% - 5.1%
Extensive OR Procedure Unrelated To Principal Diagnosis (981 , 982 , 983)	2.9%	\$38,651,476	0.5% - 5.3%
Renal Failure (682 , 683 , 684)	1.5%	\$29,423,176	0.4% - 2.5%
Septicemia Or Severe Sepsis W/O Mv 96+ Hours (871 , 872)	0.5%	\$28,278,451	0.1% - 0.9%
Heart Failure & Shock (291 , 292 , 293)	0.8%	\$25,799,901	0.1% - 1.4%
Spinal Fusion Except Cervical (459 , 460)	1.3%	\$24,547,984	1.1% - 1.4%
Major Joint Replacement Or Reattachment Of Lower Extremity (469 , 470)	0.4%	\$22,623,431	0.4% - 0.4%
Coronary Bypass W/O Cardiac Cath (235, 236)	1.6%	\$21,634,133	1.4% - 1.9%
Other Digestive System OR Procedures (356 , 357 , 358)	5.4%	\$21,530,040	(2.5%) - 13.2%
Intracranial Hemorrhage Or Cerebral Infarction (064 , 065 , 066)	1.4%	\$21,130,188	(0.2%) - 3.0%
Kidney & Urinary Tract Infections (689, 690)	1.6%	\$20,758,682	0.5% - 2.7%
Other Circulatory System Diagnoses (314, 315 , 316)	2.0%	\$16,628,394	1.7% - 2.3%
Laparoscopic Cholecystectomy W/O C.D.E. (417 , 418 , 419)	2.2%	\$16,312,460	1.8% - 2.5%
Acute Myocardial Infarction, Discharged Alive (280 , 281 , 282)	1.2%	\$14,876,200	(0.6%) - 2.9%
G.I. Hemorrhage (377 , 378 , 379)	0.8%	\$14,739,562	0.1% - 1.5%
Wnd Debrid & Skn Grft Exc Hand, For Musculo-Conn Tiss Dis (463 , 464 , 465)	3.2%	\$14,703,106	2.6% - 3.7%
Respiratory System Diagnosis W Ventilator Support <96 Hours (208)	1.3%	\$14,469,535	0.9% - 1.6%
Major Cardiovasc Procedures (237 , 238)	1.5%	\$14,181,331	0.5% - 2.6%
Esophagitis, Gastroent & Misc Digest Disorders (391 , 392)	1.1%	\$13,682,519	(0.1%) - 2.3%
All Other Codes	0.6%	\$472,401,759	0.4% - 0.8%
Overall	0.8%	\$929,260,920	0.6% - 1.0%

Appendix I: Overpayments

Tables I1 through I4 provide for each claim type the service-specific overpayment rates. The tables are sorted in descending order by projected improper payments.

**Table I1: Service Specific Overpayment Rates:
Part B**

Part B Services (BETOS Codes)	Number of Claims in Sample	Number of Lines in Sample	Dollars Overpaid in Sample	Total Dollars Paid in Sample	Projected Dollars Overpaid	Overpayment Rate
All Codes W Less Than 30 Claims	4,921	8,175	\$107,553	\$890,672	\$2,448,510,521	8.4%
Initial hospital care (99223)	664	667	\$40,026	\$119,431	\$652,422,003	33.8%
Subsequent hospital care (99233)	856	1,309	\$36,426	\$121,533	\$542,582,860	29.7%
Office/outpatient visit est (99214)	900	902	\$5,779	\$84,872	\$394,798,829	5.6%
Subsequent hospital care (99232)	780	1,318	\$11,710	\$87,343	\$341,726,342	12.7%
Therapeutic exercises (97110)	370	413	\$5,915	\$18,341	\$299,395,466	33.1%
Critical care first hour (99291)	315	411	\$26,616	\$83,548	\$277,395,431	29.0%
Emergency dept visit (99285)	223	223	\$6,038	\$34,536	\$269,944,244	18.8%
Ambulance BLS(A0428)	147	159	\$6,071	\$30,710	\$256,291,998	20.6%
Office/outpatient visit est (99213)	579	590	\$1,735	\$36,874	\$233,168,881	4.1%
Office/outpatient visit est (99215)	272	272	\$6,446	\$35,173	\$204,583,565	19.4%
Office/outpatient visit new (99204)	223	223	\$5,335	\$31,371	\$204,463,702	18.1%
Ambulance ALS Level 1-emergency (A0427)	194	194	\$8,103	\$70,897	\$198,368,639	11.4%
Chiropractic manipulation (98941)	466	572	\$9,435	\$17,034	\$184,787,446	52.7%
Initial hospital care (99222)	255	255	\$7,208	\$30,394	\$163,290,635	22.9%
Ground mileage (A0425)	438	451	\$4,398	\$31,920	\$139,845,535	13.7%
Office/outpatient visit new (99203)	112	112	\$1,535	\$9,381	\$133,279,140	15.4%
Manual therapy (97140)	323	361	\$3,264	\$9,769	\$128,882,754	33.4%
No HCPCS Label	430	606	\$7,215	\$41,522	\$127,304,393	8.9%
Office/outpatient visit new (99205)	149	149	\$5,467	\$26,187	\$107,770,801	21.8%
All Other Codes	11,312	23,699	\$396,789	\$2,707,657	\$3,535,048,368	12.2%
Combined	17,454	41,061	\$703,065	\$4,519,168	\$10,843,861,554	11.9%

**Table I2: Service Specific Overpayment Rates:
DMEPOS**

DMEPOS (HCPCS)	Number of Claims in Sample	Number of Lines in Sample	Dollars Overpaid in Sample	Total Dollars Paid in Sample	Projected Dollars Overpaid	Overpayment Rate
All Codes W Less Than 30 Claims	2,451	3,594	\$669,407	\$1,753,102	\$933,768,888	51.9%
Oxygen concentrator (E1390)	1,044	1,081	\$93,657	\$152,154	\$783,718,989	61.2%
Blood glucose/reagent strips (A4253)	962	979	\$52,086	\$91,761	\$569,440,653	57.1%
PWC gp 2 std cap chair (K0823)	581	597	\$124,754	\$155,462	\$154,185,886	80.6%
Hosp bed semi-electr w/ matt (E0260)	228	232	\$16,834	\$19,626	\$117,275,279	83.4%
Cont airway pressure device (E0601)	104	111	\$2,875	\$8,197	\$75,196,567	34.3%
Enteral feed supp pump per d (B4035)	79	82	\$11,389	\$17,282	\$69,895,164	64.3%
CPAP full face mask (A7030)	66	66	\$6,083	\$10,595	\$63,826,897	51.8%
Portable gaseous O2 (E0431)	446	463	\$6,527	\$10,981	\$59,862,194	59.3%
Lancets per box (A4259)	518	523	\$4,937	\$8,633	\$59,652,076	57.8%
Nasal application device (A7034)	73	73	\$3,971	\$6,814	\$58,848,469	57.1%
NDC 00004-1101-51 Capecitabi (WW093)	38	38	\$19,149	\$86,881	\$56,535,421	22.8%
Arformoterol non-comp unit (J7605)	71	72	\$8,132	\$21,217	\$53,572,352	48.8%
Diab shoe for density insert (A5500)	77	85	\$6,203	\$8,790	\$52,941,678	68.0%
EF spec metabolic noninherit (B4154)	53	56	\$13,512	\$18,333	\$52,564,481	78.2%
RAD w/o backup non- inv intf (E0470)	54	56	\$5,612	\$9,227	\$51,504,678	58.9%
Lightweight wheelchair (K0003)	61	61	\$3,704	\$3,852	\$50,812,414	97.3%
Budesonide non-comp unit (J7626)	101	103	\$7,748	\$27,022	\$50,266,076	27.8%
High strength ltwt whlchr (K0004)	60	60	\$5,400	\$5,543	\$46,672,538	96.5%
Standard wheelchair (K0001)	70	72	\$2,228	\$2,497	\$46,021,996	87.1%
All Other Codes	7,286	19,766	\$5,123,515	\$14,266,388	\$1,686,721,479	48.1%
Combined	10,979	28,170	\$6,187,724	\$16,684,357	\$5,093,284,175	53.1%

**Table I3: Service Specific Overpayment Rates:
Part A Excluding Inpatient Hospital PPS**

Part A Services Excluding Inpatient Hospital PPS (TOB)	Number of Claims in Sample	Dollars Overpaid in Sample	Total Dollars Paid in Sample	Projected Dollars Overpaid	Overpayment Rate
Home Health	1,308	\$1,708,567	\$3,452,627	\$9,391,256,210	51.4%
Hospital Outpatient	1,872	\$56,523	\$742,224	\$3,437,142,334	7.6%
SNF Inpatient	1,367	\$531,958	\$7,822,845	\$2,403,395,009	6.8%
Hospital Inpatient (Part A)	608	\$1,029,789	\$7,769,590	\$1,345,286,782	13.8%
Clinic ESRD	525	\$154,537	\$1,418,751	\$1,168,699,950	10.7%
Nonhospital based hospice	360	\$37,427	\$1,217,073	\$471,100,856	3.8%
CAH	292	\$5,685	\$106,007	\$248,562,181	5.6%
SNF Inpatient Part B	132	\$6,909	\$116,291	\$176,703,212	6.8%
Hospital based hospice	63	\$17,681	\$210,731	\$122,795,268	8.6%
Hospital Other Part B	144	\$1,004	\$5,593	\$109,259,443	19.7%
Clinic OPT	102	\$3,831	\$29,246	\$100,226,368	14.7%
Hospital Inpatient Part B	74	\$4,276	\$41,879	\$58,356,521	12.1%
Clinical Rural Health	426	\$1,759	\$46,088	\$26,153,649	2.6%
SNF Outpatient	105	\$3,641	\$59,917	\$19,311,150	6.5%
FQHC	261	\$783	\$27,088	\$14,343,587	1.8%
Clinic CORF	79	\$5,439	\$20,781	\$10,429,714	24.0%
All Other Codes	34	\$0	\$83,401	\$0	0.0%
Combined	7,752	\$3,569,808	\$23,170,131	\$19,103,022,233	13.0%

**Table I4: Service Specific Overpayment Rates:
Part A Inpatient Hospital PPS**

Part A Inpatient Hospital PPS Services (MS-DRGs)	Number of Claims in Sample	Dollars Overpaid in Sample	Total Dollars Paid in Sample	Projected Dollars Overpaid	Overpayment Rate
All Codes W Less Than 30 Claims	2,171	\$2,774,027	\$35,534,961	\$4,702,086,831	9.0%
Perc Cardiovasc Proc W Drug-Eluting Stent W/O MCC (247)	252	\$926,794	\$3,309,323	\$361,793,859	28.0%
Major Joint Replacement Or Reattachment Of Lower Extremity W/O MCC (470)	955	\$692,066	\$12,576,820	\$310,007,482	5.7%
Peripheral Vascular Disorders W Cc (300)	30	\$52,658	\$236,398	\$288,138,613	55.8%
Psychoses (885)	285	\$172,454	\$2,137,321	\$270,302,118	8.7%
Chest Pain (313)	107	\$220,531	\$347,081	\$257,700,738	75.0%
Esophagitis, Gastroent & Misc Digest Disorders W/O Mcc (392)	193	\$260,731	\$887,880	\$254,124,947	25.0%
Cardiac Defibrillator Implant W/O Cardiac Cath W/O MCC (227)	792	\$13,389,933	\$27,841,447	\$240,395,570	47.9%
Heart Failure & Shock W Cc (292)	103	\$107,975	\$653,795	\$211,534,852	17.3%
Heart Failure & Shock W MCC (291)	86	\$76,477	\$854,070	\$195,732,562	10.6%
Circulatory Disorders Except AMI, W Card Cath W/O MCC (287)	222	\$427,475	\$1,499,006	\$183,015,984	29.2%
Syncope & Collapse (312)	47	\$73,622	\$220,898	\$179,876,848	33.6%
Transient Ischemia (069)	56	\$106,008	\$281,784	\$175,628,551	42.0%
Spinal Fusion Except Cervical W/O MCC (460)	271	\$610,970	\$6,893,544	\$169,350,555	10.5%
Nutritional & Misc Metabolic Disorders W/O MCC (641)	48	\$59,637	\$205,698	\$162,821,930	28.8%
Degenerative Nervous System Disorders W/O MCC (057)	30	\$84,436	\$244,306	\$155,877,316	34.9%
Permanent Cardiac Pacemaker Implant W CC (243)	489	\$2,529,663	\$8,170,402	\$153,119,501	30.9%
Chronic Obstructive Pulmonary Disease W CC (191)	40	\$62,947	\$252,189	\$152,567,128	19.3%
Renal Failure W CC (683)	50	\$49,527	\$335,272	\$146,999,133	15.7%
Kidney & Urinary Tract Infections W/O MCC (690)	48	\$42,438	\$218,401	\$146,825,605	18.0%

Part A Inpatient Hospital PPS Services (MS-DRGs)	Number of Claims in Sample	Dollars Overpaid in Sample	Total Dollars Paid in Sample	Projected Dollars Overpaid	Overpayment Rate
All Other Codes	8,084	\$20,544,933	\$120,926,972	\$3,793,008,076	9.8%
Combined	14,359	\$43,265,301	\$223,627,569	\$12,510,908,200	11.1%

**Table I5: Service-Specific Overpayment Rates:
All CERT**

All Services	Number of Claims in Sample	Dollars Overpaid in Sample	Total Dollars Paid in Sample	Projected Dollars Overpaid	Overpayment Rate
All	50,544	\$53,725,898	\$268,001,226	\$47,551,076,162	13.2%

Appendix J: Underpayments

The following tables provide for each claim type the service-specific underpayment rates. The tables are sorted in descending order by projected dollars underpaid. All estimates in these tables are based on a minimum of 30 claims in the sample with at least one claim underpaid.

**Table J1: Service-Specific Underpayment Rates:
Part B**

Part B Services (BETOS Codes)	Number of Claims in Sample	Number of Lines in Sample	Dollars Underpaid in Sample	Total Dollars Paid in Sample	Projected Dollars Underpaid	Underpayment Rate
Office/outpatient visit est (99212)	153	165	\$524	\$5,959	\$56,964,603	9.0%
Office/outpatient visit est (99213)	579	590	\$394	\$36,874	\$52,732,451	0.9%
All Codes W Less Than 30 Claims	4,921	8,175	\$452	\$890,672	\$21,264,813	0.1%
Subsequent hospital care (99231)	187	309	\$335	\$10,699	\$13,960,526	4.3%
Nursing fac care subseq (99307)	44	45	\$121	\$1,737	\$9,146,506	8.1%
Office/outpatient visit est (99214)	900	902	\$74	\$84,872	\$6,926,956	0.1%
Office/outpatient visit new (99203)	112	112	\$52	\$9,381	\$6,260,324	0.7%
Office/outpatient visit new (99202)	55	55	\$68	\$3,023	\$4,609,766	3.1%
Office/outpatient visit est (99211)	108	113	\$138	\$1,581	\$4,040,042	4.1%
Subsequent hospital care (99232)	780	1,318	\$101	\$87,343	\$4,035,889	0.1%
Emergency dept visit (99283)	72	72	\$102	\$3,775	\$3,797,612	2.0%
Neuromuscular reeducation (97112)	179	194	\$30	\$6,805	\$1,949,564	1.1%
No HCPCS Label	430	606	\$167	\$41,522	\$1,668,215	0.1%
Emergency dept visit (99285)	223	223	\$26	\$34,536	\$1,488,148	0.1%
Initial hospital care (99222)	255	255	\$61	\$30,394	\$1,044,605	0.1%
Triamcinolone acet inj NOS (J3301)	44	45	\$7	\$309	\$751,973	4.2%
Dxa bone density axial (77080)	38	38	\$9	\$1,075	\$719,236	0.9%
Complete cbc w/auto diff wbc (85025)	463	463	\$4	\$4,633	\$690,335	0.3%
Initial hospital care (99221)	52	52	\$28	\$4,322	\$643,329	0.4%
Subsequent hospital care (99233)	856	1,309	\$41	\$121,533	\$581,227	0.0%
All Other Codes	12,866	26,020	\$217	\$3,138,123	\$1,950,906	0.0%
Combined	17,454	41,061	\$2,952	\$4,519,168	\$195,227,028	0.2%

**Table J2: Service-Specific Underpayment Rates:
DMEPOS**

DMEPOS (HCPCS)	Number of Claims in Sample	Number of Lines in Sample	Dollars Underpaid in Sample	Total Dollars Paid in Sample	Projected Dollars Underpaid	Underpayment Rate
Calibrator solution/chips (A4256)	344	346	\$17	\$3,352	\$161,035	0.5%
Socket insert w lock mech (L5673)	389	392	\$2,867	\$405,979	\$103,604	0.3%
Flex-walk sys low ext prosth (L5981)	155	155	\$3,005	\$401,210	\$88,418	0.6%
BK mold socket SACH ft endo (L5301)	219	219	\$2,153	\$506,369	\$63,359	0.2%
Endo bk ultra-light material (L5940)	314	315	\$622	\$144,160	\$18,305	0.2%
BK/AK locking mechanism (L5671)	365	366	\$617	\$181,609	\$18,152	0.2%
Test socket below knee (L5620)	367	372	\$522	\$132,351	\$13,510	0.2%
Endo below knee alignable sy (L5910)	294	294	\$449	\$104,538	\$13,217	0.2%
Below knee acrylic socket (L5629)	332	332	\$296	\$105,228	\$8,698	0.2%
Below knee total contact (L5637)	378	378	\$269	\$116,025	\$7,907	0.1%
Prosthetic sock multi ply BK (L8420)	316	319	\$109	\$41,044	\$3,194	0.1%
Shrinker below knee (L8440)	105	107	\$78	\$8,286	\$2,289	0.2%
Pros sock single ply BK (L8470)	265	265	\$50	\$10,338	\$1,460	0.3%
All Other Codes	10,830	24,310	\$0	\$14,523,867	\$0	0.0%
Combined	10,979	28,170	\$11,052	\$16,684,357	\$503,148	0.0%

**Table J3: Service-Specific Underpayment Rates:
Part A Excluding Inpatient Hospital PPS**

Part A Services Excluding Inpatient Hospital PPS (TOB)	Number of Claims in Sample	Number of Lines in Sample	Dollars Underpaid in Sample	Total Dollars Paid in Sample	Projected Dollars Underpaid	Underpayment Rate
SNF Inpatient	1,367	1,367	\$9,467	\$7,822,845	\$48,308,666	0.1%
Hospital Outpatient	1,872	1,872	\$268	\$742,224	\$13,607,869	0.0%
Home Health	1,308	1,308	\$1,534	\$3,452,627	\$4,353,306	0.0%
CAH	292	292	\$99	\$106,007	\$3,716,215	0.1%
Clinic OPT	102	102	\$18	\$29,246	\$295,948	0.0%
Clinic ESRD	525	525	\$34	\$1,418,751	\$227,846	0.0%
Clinic CORF	79	79	\$27	\$20,781	\$113,524	0.3%
All Other Codes	2,207	2,207	\$0	\$9,577,650	\$0	0.0%
Combined	7,752	7,752	\$11,447	\$23,170,131	\$70,623,373	0.0%

**Table J4: Service-Specific Underpayment Rates:
Part A Inpatient Hospital PPS**

Service Billed to Part A Inpatient Hospital PPS (MS-DRG Groups)	Number of Claims in Sample	Number of Lines in Sample	Dollars Underpaid in Sample	Total Dollars Paid in Sample	Projected Dollars Underpaid	Underpayment Rate
All Codes W Less Than 30 Claims	2,171	2,171	\$387,702	\$35,534,961	\$620,475,945	1.2%
Septicemia Or Severe Sepsis W/O Mv 96+ Hours W/O MCC (872)	51	51	\$19,834	\$437,045	\$48,275,933	4.7%
Heart Failure & Shock W/O CC/MCC (293)	53	53	\$24,272	\$245,351	\$34,939,536	10.0%
G.I. Obstruction W CC (389)	30	30	\$9,433	\$181,220	\$31,080,263	6.6%
Simple Pneumonia & Pleurisy W/O Cc/Mcc (195)	51	51	\$20,252	\$232,115	\$28,718,970	8.4%
Major Small & Large Bowel Procedures W/O Cc/Mcc (331)	56	56	\$45,352	\$593,381	\$27,636,598	10.2%
Esophagitis, Gastroent & Misc Digest Disorders W/O Mcc (392)	193	193	\$7,872	\$887,880	\$23,388,911	2.3%
Simple Pneumonia & Pleurisy W Cc (194)	83	83	\$9,624	\$550,535	\$22,380,261	1.9%
Respiratory Infections & Inflammations W Cc (178)	35	35	\$6,902	\$364,486	\$22,137,395	2.6%
Heart Failure & Shock W Cc (292)	103	103	\$7,191	\$653,795	\$21,132,102	1.7%
G.I. Hemorrhage W Cc (378)	54	54	\$6,947	\$334,380	\$20,602,242	2.2%
Simple Pneumonia & Pleurisy W Mcc (193)	74	74	\$6,394	\$766,491	\$18,058,500	1.2%
Major Cardiovasc Procedures W/O Mcc (238)	46	46	\$20,447	\$1,009,563	\$17,692,254	2.4%
Cardiac Valve & Oth Maj Cardiothoracic Proc W/O Card Cath W Cc (220)	35	35	\$50,270	\$1,252,875	\$16,154,148	2.0%
Seizures W/O Mcc (101)	51	51	\$14,551	\$270,039	\$15,777,198	5.4%
Major Chest Procedures W/O Cc/Mcc (165)	33	33	\$19,965	\$393,117	\$13,890,317	16.8%
Major Joint Replacement Or Reattachment Of Lower Extremity W/O Mcc (470)	955	955	\$37,867	\$12,576,820	\$13,341,476	0.2%
Diabetes W Cc (638)	30	30	\$7,824	\$165,455	\$11,013,808	3.6%
Other Vascular Procedures W/O Cc/Mcc (254)	123	123	\$61,530	\$1,388,475	\$10,161,270	3.6%
Intracranial Hemorrhage Or Cerebral Infarction W/O Cc/Mcc (066)	37	37	\$7,894	\$203,443	\$9,858,730	3.3%

Service Billed to Part A Inpatient Hospital PPS (MS-DRG Groups)	Number of Claims in Sample	Number of Lines in Sample	Dollars Underpaid in Sample	Total Dollars Paid in Sample	Projected Dollars Underpaid	Underpayment Rate
All Other Codes	10,095	10,095	\$1,575,889	\$165,586,143	\$247,285,770	0.6%
Combined	14,359	14,359	\$2,348,012	\$223,627,569	\$1,274,001,626	1.1%

**Table J5: Service-Specific Underpayment Rates:
All Services**

All Services	Number of Claims in Sample	Number of Lines in Sample	Dollars Underpaid in Sample	Total Dollars Paid in Sample	Projected Dollars Underpaid	Underpayment Rate
All	50,544	91,342	\$2,373,463	\$268,001,226	\$1,540,355,175	0.4%

Appendix K: Statistics and Other Information for the CERT Sample

The following tables provide information on the sample size for each category for which this report makes national estimates. These tables also show the number of claims containing errors and the percent of claims with payment errors. Data in these tables for Part B and DMEPOS data is expressed in terms of line items, and data in these tables for Part A data is expressed in terms of claims. Totals cannot be calculated for these categories since CMS is using different units for each type of service.

**Table K1: Claims in Error:
Part B**

Variable	Number of Claims Reviewed	Number of Claims Containing Errors	Percent of Claims Containing Errors
HCPCS			
All Codes W Less Than 30 Claims	8,175	1,463	17.9%
Chiropractic manipulation (98941)	572	279	48.8%
Comprehen metabolic panel (80053)	557	133	23.9%
Initial hospital care (99223)	665	361	54.3%
No HCPCS Label	606	147	24.3%
Office/outpatient visit est (99213)	590	49	8.3%
Office/outpatient visit est (99214)	902	131	14.5%
Routine venipuncture (36415)	773	168	21.7%
Subsequent hospital care (99232)	1,296	213	16.4%
Subsequent hospital care (99233)	1,263	734	58.1%
Other	25,579	6,970	27.2%
TOS			
Ambulance	1,103	134	12.1%
Hospital visit - initial	1,012	518	51.2%
Hospital visit - subsequent	3,263	1,142	35.0%
Lab tests - other (non-Medicare fee schedule)	9,742	4,193	43.0%
Minor procedures - other (Medicare fee schedule)	2,313	535	23.1%
Office visits - established	2,116	401	19.0%
Other drugs	1,088	178	16.4%
Specialist - other	1,330	45	3.4%
Specialist - psychiatry	982	202	20.6%

Variable	Number of Claims Reviewed	Number of Claims Containing Errors	Percent of Claims Containing Errors
Undefined codes	1,130	0	0.0%
Other	16,899	3,300	19.5%
Resolution Type			
Automated	11,210	1,108	9.9%
Complex	64	14	21.9%
None	29,621	9,519	32.1%
Routine	83	7	8.4%
Diagnosis Code			
Arthropathies and related disorders	1,868	394	21.1%
Diseases of other endocrine glands	1,773	499	28.1%
Disorders of the eye and adnexa	1,994	97	4.9%
Dorsopathies	2,233	729	32.6%
Hypertensive disease	1,465	390	26.6%
Osteopathies, chondropathies, and acquired musculoskeletal deformities	1,786	607	34.0%
Other forms of heart disease	1,671	441	26.4%
Other metabolic disorders and immunity disorders	1,642	525	32.0%
Persons encountering health services for specific procedures and aftercare	3,341	1,655	49.5%
Symptoms	3,488	729	20.9%
Other	19,717	4,582	23.2%

**Table K2: Claims in Error:
DMEPOS**

Variable	Number of Claims Reviewed	Number of Claims Containing Errors	Percent of Claims Containing Errors
Service			
All Codes W Less Than 30 Claims	3,594	1,405	39.1%
Below knee total contact (L5637)	378	125	33.1%
Blood glucose/reagent strips (A4253)	979	607	62.0%
Lancets per box (A4259)	523	305	58.3%
Oxygen concentrator (E1390)	1,081	542	50.1%
PWC gp 2 std cap chair (K0823)	597	439	73.5%
Portable gaseous O2 (E0431)	463	224	48.4%
Socket insert w lock mech (L5673)	392	116	29.6%
W/C component-accessory NOS (K0108)	383	124	32.4%
W/C manual swingaway (E1028)	485	165	34.0%
Other	19,295	7,634	39.6%
TOS Code			
CPAP	1,131	580	51.3%
Glucose Monitor	2,236	1,248	55.8%
Immunosuppressive Drugs	598	218	36.5%
Lower Limb Prostheses	9,217	2,795	30.3%
Nebulizers & Related Drugs	1,226	586	47.8%
Oxygen Supplies/Equipment	1,937	985	50.9%
Support Surfaces	625	304	48.6%
Wheelchairs Motorized	1,159	713	61.5%
Wheelchairs Options/Accessories	2,955	1,282	43.4%
Wheelchairs Seating	819	287	35.0%
Other	6,267	2,688	42.9%
Resolution Type			
Automated	4,623	42	0.9%
Complex	861	140	16.3%
None	22,561	11,476	50.9%
Routine	125	28	22.4%

Diagnosis Code			
All Codes W Less Than 30 Claims	850	343	40.4%
Arthropathies and related disorders	885	493	55.7%
Chronic obstructive pulmonary disease and allied conditions	2,645	1,350	51.0%
Diseases of other endocrine glands	2,958	1,643	55.5%
No Matching Diagnosis Code Label	1,318	674	51.1%
Open wound of lower limb	8,041	2,527	31.4%
Other diseases of skin and subcutaneous tissue	816	347	42.5%
Other disorders of the central nervous system	1,812	649	35.8%
Persons W a condition influencing their health status	2,426	784	32.3%
Symptoms	768	337	43.9%
Other	5,651	2,539	44.9%

**Table K3: Claims in Error:
Part A Excluding Inpatient Hospital PPS**

Variable	Number of Claims Reviewed	Number of Claims Containing Errors	Percent of Claims Containing Errors
Type Of Bill			
Clinic ESRD	525	172	32.8%
Clinical Rural Health	426	16	3.8%
CAH	292	66	22.6%
FQHC	261	9	3.4%
Home Health	1,308	695	53.1%
Hospital Inpatient (Part A)	608	75	12.3%
Hospital Other Part B	144	37	25.7%
Hospital Outpatient	1,872	375	20.0%
Nonhospital based hospice	360	37	10.3%
SNF Inpatient	1,367	150	11.0%
Other	589	82	13.9%
TOS Code			
Clinic ESRD	525	172	32.8%
Clinical Rural Health	426	16	3.8%
CAH	292	66	22.6%
FQHC	261	9	3.4%
Home Health	1,308	695	53.1%
Hospital Inpatient (Part A)	608	75	12.3%
Hospital Other Part B	144	37	25.7%
Hospital Outpatient	1,872	375	20.0%
Nonhospital based hospice	360	37	10.3%
SNF Inpatient	1,367	150	11.0%
Other	589	82	13.9%
Diagnosis Code			
All Codes W Less Than 30 Claims	250	39	15.6%
Arthropathies and related disorders	284	64	22.5%
Chronic obstructive pulmonary disease and allied conditions	221	53	24.0%
Diseases of other endocrine glands	299	83	27.8%
Dorsopathies	207	36	17.4%

Variable	Number of Claims Reviewed	Number of Claims Containing Errors	Percent of Claims Containing Errors
Hypertensive disease	299	69	23.1%
Nephritis, nephrotic syndrome, and nephrosis	585	182	31.1%
Other forms of heart disease	394	118	29.9%
Persons encountering health services for specific procedures and aftercare	1,251	314	25.1%
Symptoms	586	123	21.0%
Other	3,376	633	18.8%

**Table K4: Claims in Error:
Part A Inpatient Hospital PPS**

Variable	Number of Claims Reviewed	Number of Claims Containing Errors	Percent of Claims Containing Errors
DRG Label			
AICD Generator Procedures (245)	502	159	31.7%
All Codes W Less Than 30 Claims	2,171	500	23.0%
Cardiac Defibrillator Implant W/O Cardiac Cath W/O Mcc (227)	792	413	52.1%
Combined Anterior/Posterior Spinal Fusion W/O Cc/Mcc (455)	303	44	14.5%
Major Joint Replacement Or Reattachment Of Lower Extremity W/O Mcc (470)	955	99	10.4%
Perc Cardiovasc Proc W/O Coronary Artery Stent W/O Mcc (251)	312	107	34.3%
Permanent Cardiac Pacemaker Implant W Cc (243)	489	212	43.4%
Permanent Cardiac Pacemaker Implant W/O Cc/Mcc (244)	522	301	57.7%
Psychoses (885)	285	45	15.8%
Spinal Fus Exc Cerv W Spinal Curv/Malig/Infec Or 9+ Fus W/O Cc/Mcc (458)	292	78	26.7%
Other	7,736	2,343	30.3%
TOS Code			
AICD Generator Procedures (245)	502	159	31.7%
All Codes W Less Than 30 Claims	805	192	23.9%
Back & Neck Proc Exc Spinal Fusion (490 , 491)	331	135	40.8%
Cardiac Defibrillator Implant W/O Cardiac Cath (226, 227)	793	414	52.2%
Combined Anterior/Posterior Spinal Fusion (453 , 454, 455)	306	44	14.4%
Major Joint Replacement Or Reattachment Of Lower Extremity (469 , 470)	979	102	10.4%
Other Vascular Procedures (252 , 253 , 254)	388	102	26.3%
Perc Cardiovasc Proc W/O Coronary Artery Stent (250, 251)	313	107	34.2%
Permanent Cardiac Pacemaker Implant (242 , 243, 244)	1,017	517	50.8%
Spinal Fus Exc Cerv W Spinal Curv/Malig/Infec Or 9+ Fus (456 , 457 , 458)	295	80	27.1%
Other	8,630	2,449	28.4%
Diagnosis Code			
Arthropathies and related disorders	976	142	14.5%
Complications of surgical and medical care, not elsewhere classified	934	244	26.1%
Diseases of arteries, arterioles, and capillaries	354	88	24.9%
Dorsopathies	912	242	26.5%
Ischemic heart disease	955	294	30.8%

Variable	Number of Claims Reviewed	Number of Claims Containing Errors	Percent of Claims Containing Errors
Osteopathies, chondropathies, and acquired musculoskeletal deformities	511	127	24.9%
Other bacterial diseases	357	41	11.5%
Other forms of heart disease	2,488	1,015	40.8%
Persons encountering health services for specific procedures and aftercare	386	180	46.6%
Symptoms	549	263	47.9%
Other	5,937	1,665	28.0%

Table K5: Included In and Excluded From the Sample

Improper Payment Rate	Paid Line Items	Unpaid Line Items	Denied For Non-Medical Reasons	Automated Medical Review Denials	No Resolution	RTP	Late Resolution	Inpt, RAPS, Tech Errors
Paid Claim	Include	Include	Include	Include	Exclude	Exclude	Exclude	Exclude
No Resolution	Include	Include	Include	Include	Include	Exclude	Include	Exclude
Provider Compliance	Include	Include	Include	Include	Exclude	Exclude	Exclude	Exclude

The dollars in error for the improper payment rate is based on the final allowed charges, and the dollars in error for the provider compliance improper payment rate is based on the fee schedule amount for the billed service. The no resolution rate is based on the number of claims where the contractor cannot track the outcome of the claim divided by no resolution claims plus all claims included in the paid or provider compliance improper payment rate.

Table K6: Frequency of Claims Included In and Excluded From Each Improper Payment Rate: Part B

Error Type	Included	Excluded	Total	Percent Included
Paid	17,454	649	18,103	96.4%
No Resolution	17,458	645	18,103	96.4%
Provider Compliance	17,454	649	18,103	96.4%

Table K7: Frequency of Claims Included In and Excluded From Each Improper Payment Rate: DMEPOS

Error Type	Included	Dropped	Total	Percent Included
Paid	10,979	370	11,349	96.7%
No Resolution	10,983	366	11,349	96.8%
Provider Compliance	10,979	370	11,349	96.7%

Table K8: Frequency of Claims Included In and Excluded From Each Improper Payment Rate: Part A Including Inpatient Hospital PPS

Error Type	Included	Dropped	Total	Percent Included
Paid	22,111	6,191	28,302	78.1%
No Resolution	22,130	6,172	28,302	78.2%